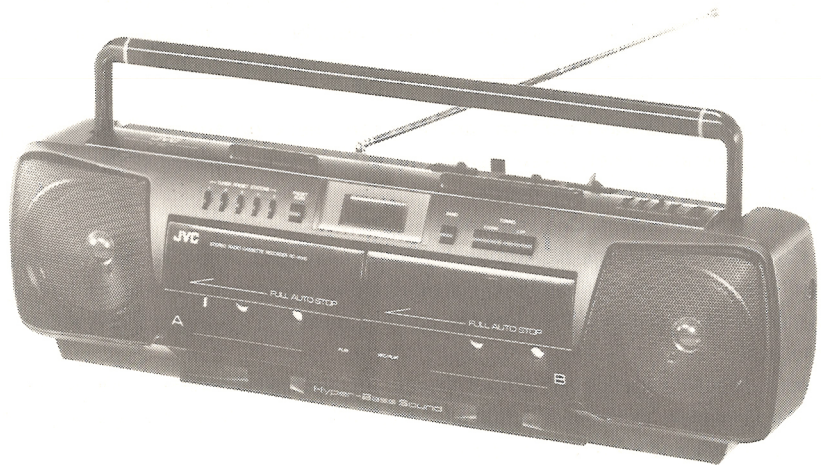


JVC

SERVICE MANUAL

STEREO RADIO CASSETTE RECORDER

RC-W410 B/E/G/GI/V/VX



Area suffix	
B	U.K.
E	Continental Europe
G	W. Germany
GI	Italy
V/VX	Eastern Europe

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# 1 Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by (  $\Delta$  ) on the Schematic Diagram and Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)  
After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

Do not use a line isolation transformer during this check.

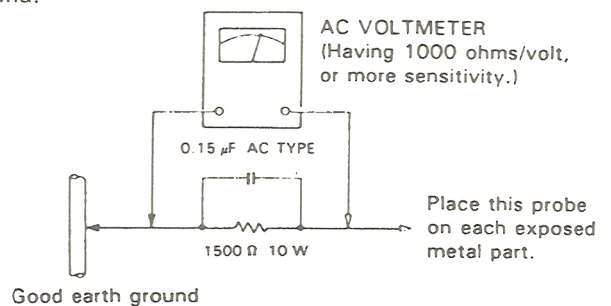
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).

## • Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500  $\Omega$  10 W resistor paralleled by a 0.15  $\mu$ F AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



## Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.



## SAFETY PRECAUTIONS ABOUT RC-W410

1. Since diodes D901, D902, D903 and D904 are heating units, wires are arranged not to touch them as shown in Fig. 1-1 ①.

Confirm that those parts are set vertically.

2. Check up wires connected to the power transformer, which must be bound together with as shown in Fig. 1-1 ②.

3. Check up that single wires coming from a P.C. board are bound together with at the collective root near the board as shown in Fig. 1-1 ③.

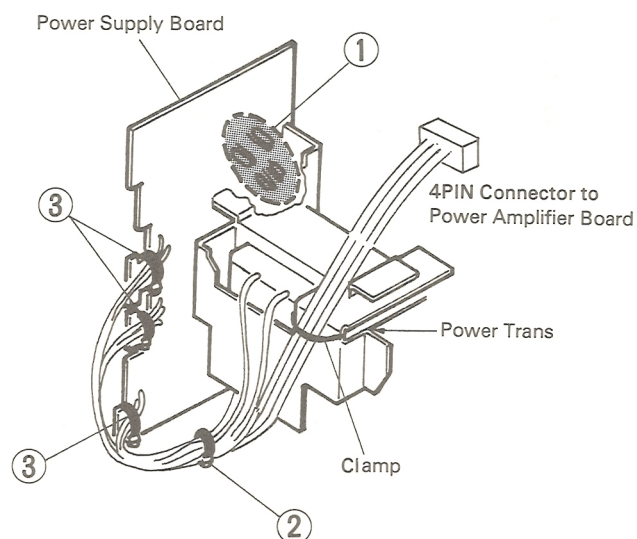


Fig. 1-1

4. Check up that all wires of motors and leaf switches are bound and secured with spacers at specific points respectively. (See Fig. 1-2 ④ and ⑤.)

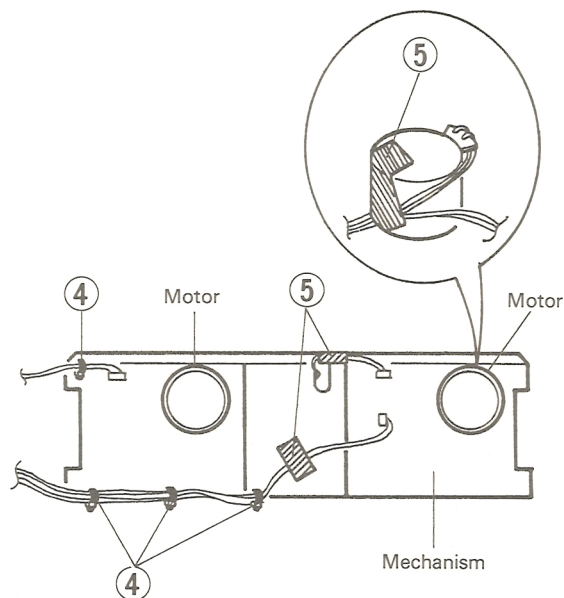


Fig. 1-2

5. Make sure of speaker wires which should be soldered as they are twisted with each other as shown in Fig. 1-3 ⑥.

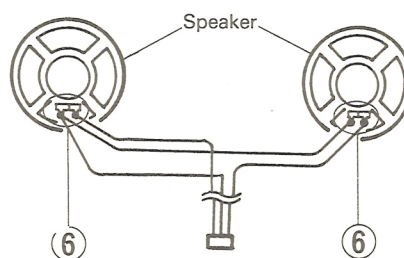


Fig. 1-3

## 2 Features

- Hyper-Bass Sound System with 3D on/off switch
- Three-band (FM/MW/LW) synthesizer tuner with Five-stations in each band (FM1, FM2, MW and LW) preset capability
- 4-element S.E.A. graphic equalizer
- Full auto-stop mechanism
- Synchro-start high-speed dubbing
- Relay play between two decks

## 3 Specifications

### Tuner section

Frequency ranges : FM 87.5–108 MHz  
                           MW 522–1629 kHz  
                           LW 144–290 kHz

Antennas : Telescopic antenna for FM  
                   Ferrite core antenna for MW & LW

### Tape Recorder section

Track system : 4-track 2-channel stereo

Frequency response : 80–12,500 Hz

Wow & flutter : 0.15 % (WRMS)

Fast wind time : Approx. 120 sec (C-60 cassette)

### General

3D system : ASW (Acoustic Super Woofer)

Speakers : 10 cm x 2

Power output : 7.0 W (3.5 W + 3.5 W) at 8  $\Omega$  and  
                           8.0 W for 3D at 12  $\Omega$  (Max.)  
                           4.0 W (2.0 W + 2.0 W) at 8  $\Omega$  and  
                           6.0 W for 3D at 12  $\Omega$  (10% THD)

S.E.A. characteristics

    S.E.A. center frequencies : 100 Hz/330 Hz/2 kHz/10 kHz

    S.E.A. control range :  $\pm 8$  dB

Input jack : MIX MIC x 1 (3 mV/–50 dBV,  
                           200  $\Omega$  – 2 k $\Omega$ )

Output jack : Headphones x 1 (20 mW/32  $\Omega$ ,  
                           8  $\Omega$  – 1 k $\Omega$ )

Power supply : DC 12 V (8 "R20" cells)  
                           AC 220–240 V/110–120 V,  
                           50/60 Hz

(RC-W410E only) Ext. DC IN 12 V (car battery via  
                           optional CN-332 car adapter)

Power consumption : 18 W

Dimensions : 560(W) x 167(H) x 153(D) mm  
                           (including knobs)

Weight : Approx. 3.9 kg (without batteries)

Design and specifications are subject to change without notice.



## 4 Names of Controls and Their Functions

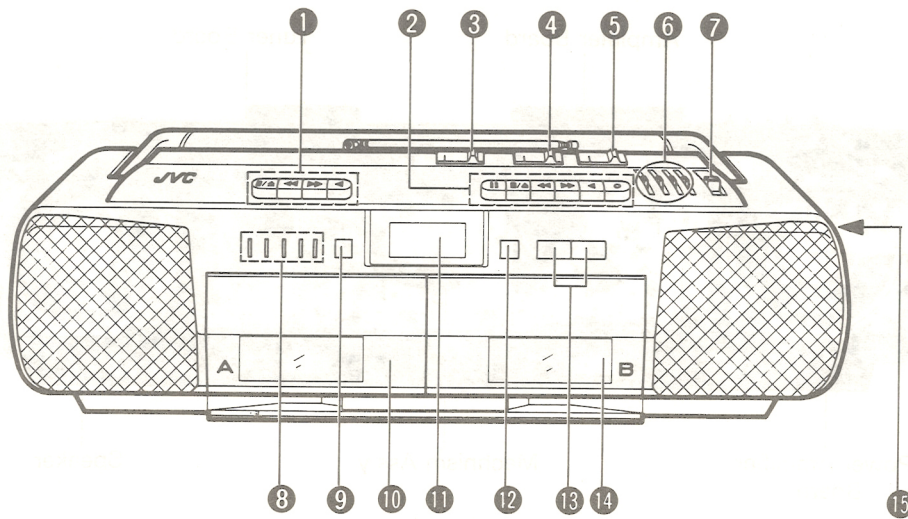


Fig. 4-1

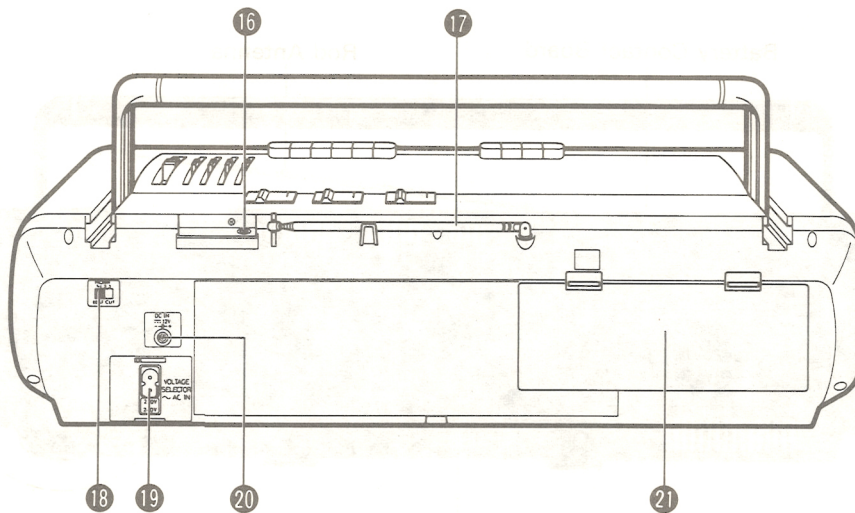


Fig. 4-2

- |  |   |
|--|---|
| <p>① Cassette operation buttons (Deck A)<br/>           ■/▲ STOP/EJECT button<br/>           ◀◀ FF button<br/>           ▶▶ REW button<br/>           ◀ PLAY button</p> <p>② Cassette operation buttons (Deck B)<br/>           ■ PAUSE button<br/>           ■/▲ STOP/EJECT button<br/>           ◀◀ FF button<br/>           ▶▶ REW button<br/>           ◀ PLAY button<br/>           ○ REC button</p> <p>③ TAPE/FM MODE switch<br/>           ④ FUNCTION switch<br/>           ⑤ 3D (HYPER-BASS SOUND) switch<br/>           ⑥ 4-BAND GRAPHIC EQUALIZER (S.E.A.) controls<br/>           ⑦ VOLUME control<br/>           ⑧ Preset station button<br/>           ⑨ PRESET SCAN button<br/>           ⑩ Cassette holder (Deck A)</p> | <p>⑪ LCD digital display<br/>           Band indicator (FM1-FM2-MW-LW)<br/>           Radio frequency display<br/>           Preset station indicator<br/>           FM stereo (STEREO) indicator</p> <p>⑫ BAND button<br/>           ⑬ TUNING control<br/>           ▼ DOWN frequency<br/>           ▲ UP frequency</p> <p>⑭ Cassette holder (Deck B)<br/>           ⑮ PHONES jack (3.5 mm dia. stereo mini)<br/>           ⑯ MIX MIC jack (3.5 mm dia. mini)<br/>           ⑰ Telescopic antenna<br/>           ⑱ BEAT CUT switch<br/>           ⑲ VOLTAGE SELECTOR/AC IN (AC input) jack<br/>           ⑳ DC IN 12 V jack (⊖ ⊕) (RC-W410E only)<br/>           ㉑ Battery compartment cover</p> |
|--|---|

# 5 Location of Main Parts

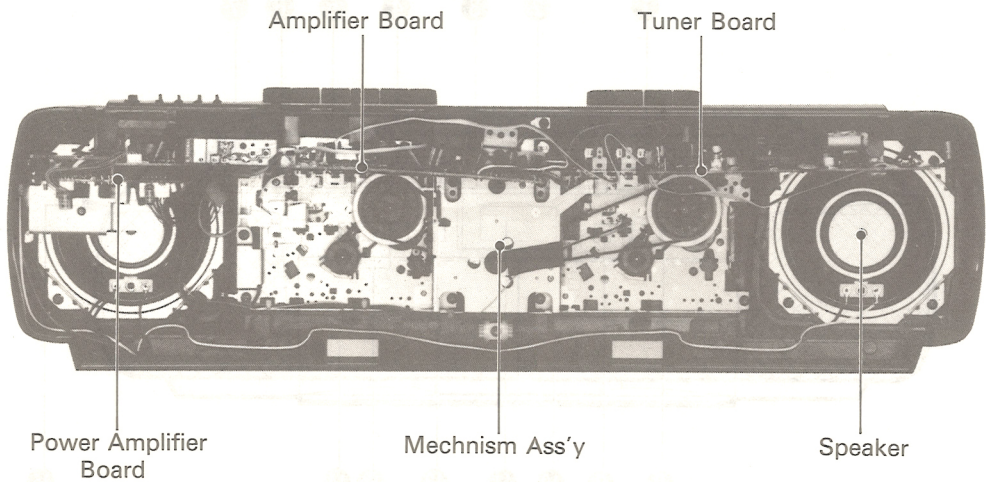


Fig. 5-1

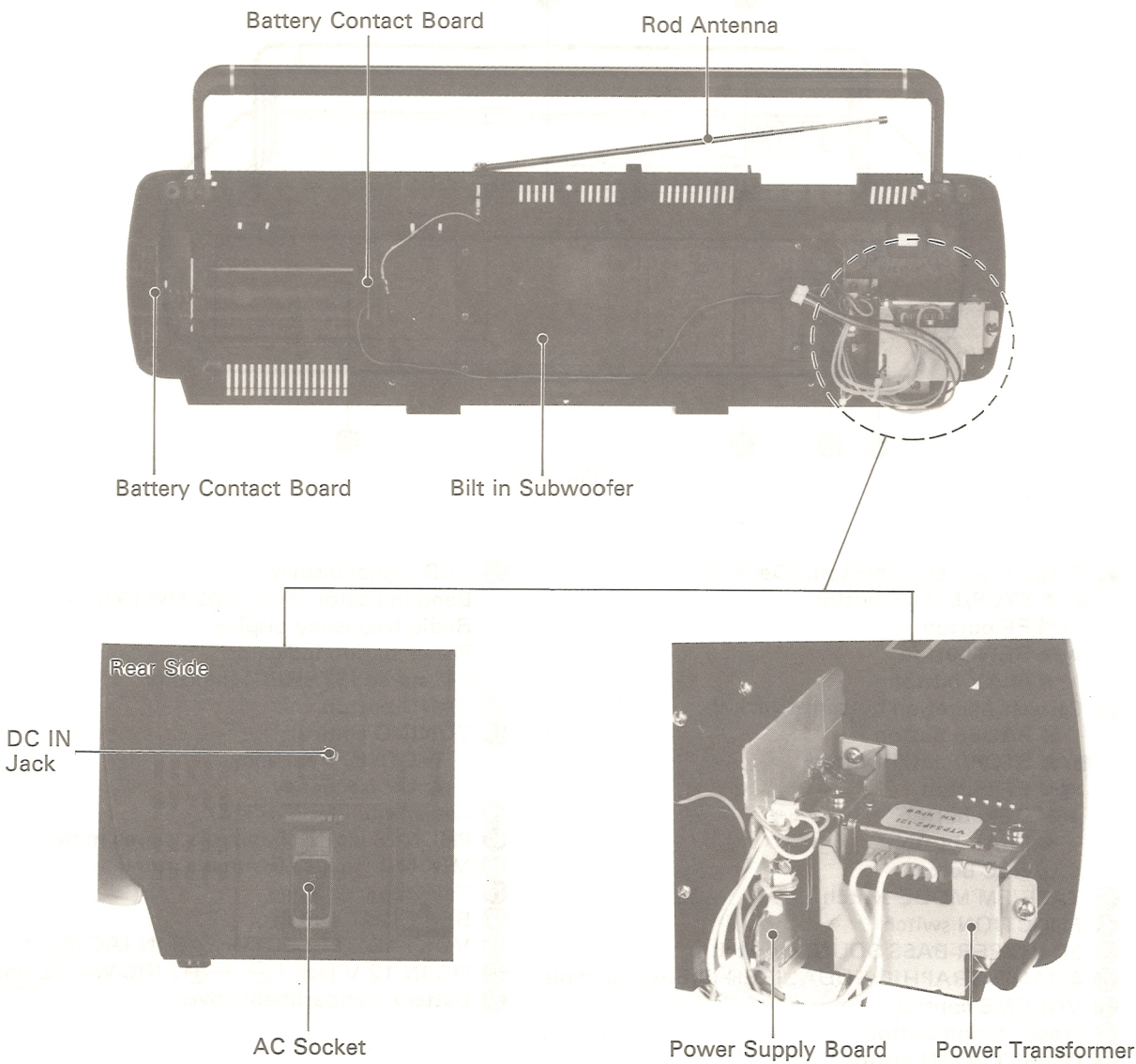


Fig. 5-2



## Mechanism Ass'y

### Top View

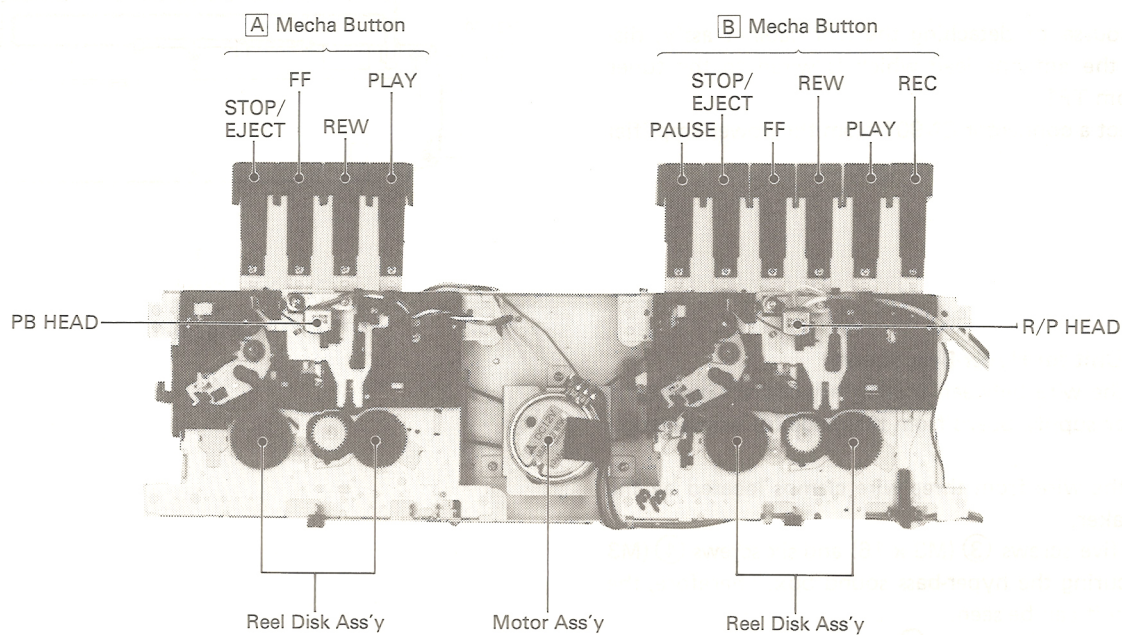


Fig. 5-3

### Bottom View

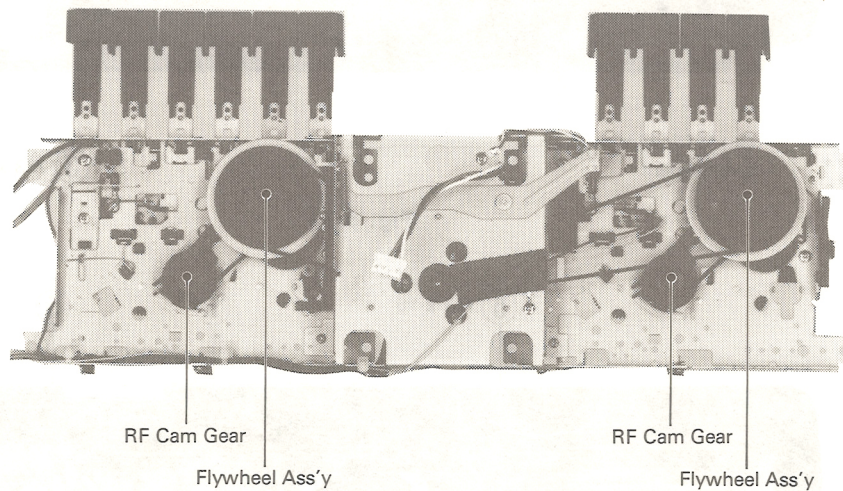


Fig. 5-4

## 6 Removal of Main Parts

### ■ Rear Cabinet Ass'y

1. Remove six screws ① (M3 x 20) and ② (M3 x 44) which secure the rear cabinet ass'y at the points indicated by ▲ marks.
2. In the course of detaching the rear cabinet ass'y, disconnect the antenna lead which is wired to the tuner board from TP1.
3. Disconnect a connector CN901 from the power amplifier board.

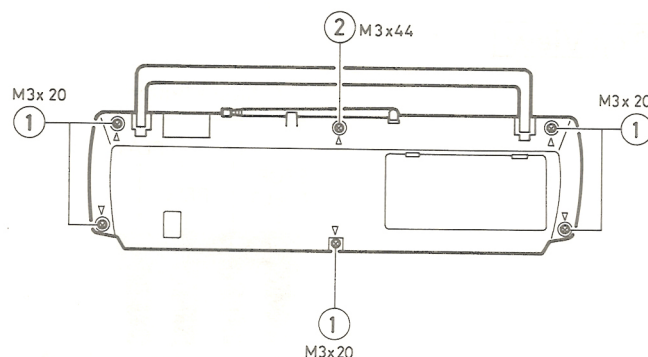


Fig. 6-1

### ■ Speaker Unit for Hyper-Bass Sound

1. Release the wire between the battery contact board and the power supply board from the guide for wire arrangement.
2. Release the wire from three wire clamps located by the right speaker.
3. Remove five screws ③ (M3 x 16) and six screws ④ (M3 x 16) securing the hyper-bass sound box. Therefore, the speaker unit can be seen.
4. By removing eight screws ⑤ (M3 x 16) from the hyper-bass sound box, the speaker unit can be taken off.

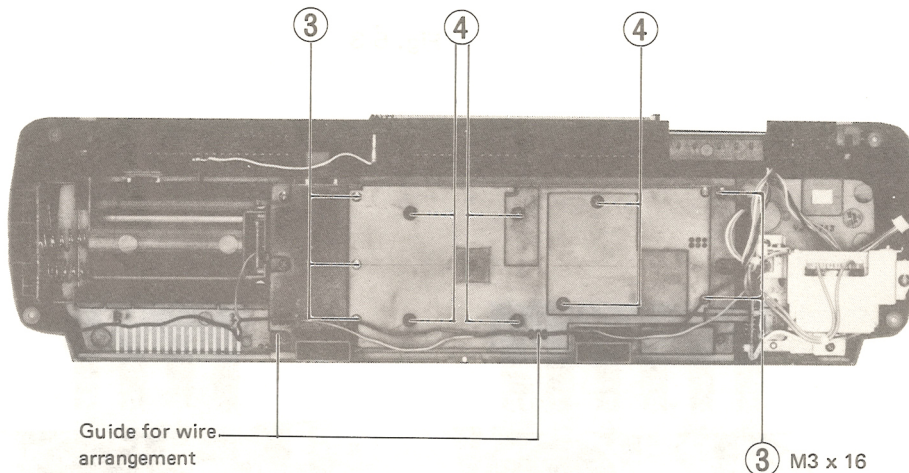


Fig. 6-2a

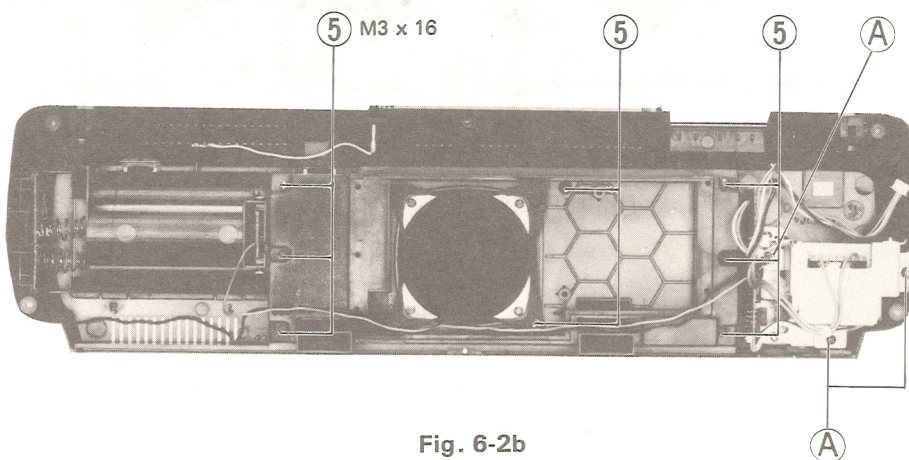


Fig. 6-2b



### ■ Tuner Board

Draw out the tuner board along the groove of the front cabinet ass'y.

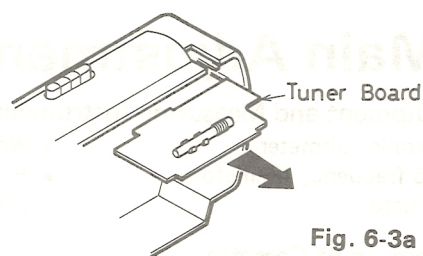


Fig. 6-3a

### ■ Main Board and Power Amplifier Board

1. Remove three knobs of the slide switches: TAPE/FM MODE, FUNCTION and 3D selectors.
2. Release the wire from three wire clamps located by the right speaker.
3. Remove adhesive tape securing the wire to the main board.
4. Remove two screws ⑥ (M3 x 45) and ⑦ (M3 x 45, black) securing the main board and power amplifier.
5. Detach the PHONES jack first, then the volume control and SEA switch, etc. one after another, and lastly take off the boards.
6. Disconnect connectors CN103, CN902, CN101, CN102 and CN401 from the Main board.

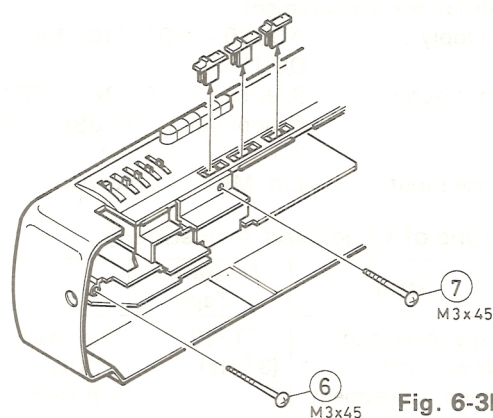


Fig. 6-3b

### ■ Mechanism Ass'y

1. Remove the tuner board and amplifier board.
2. Remove nine screws ⑧ (M3 x 10) and ⑨ (M3 x 25) securing the mechanism ass'y.
3. Draw out the Rec. lever.

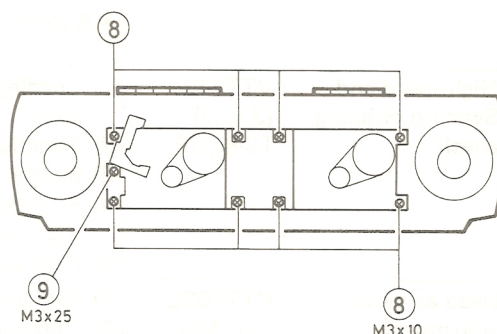


Fig. 6-4

### ■ Operation Buttons

Remove ten screws ⑩ (M2 x 4) securing operation buttons to the mechanism.

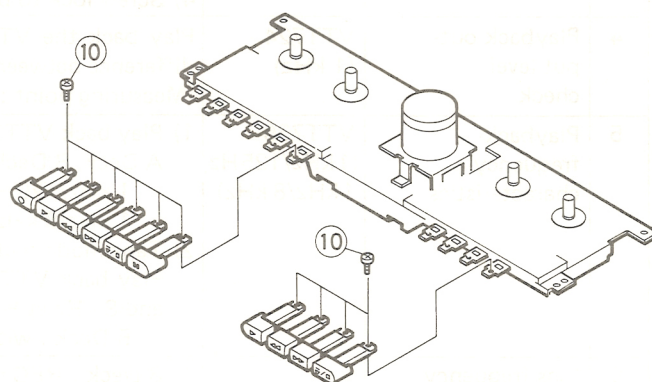
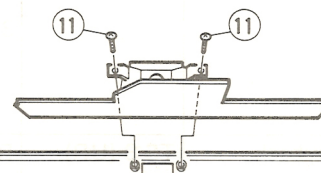


Fig. 6-5

### ■ Synthesizer/LCD Board

Remove two screws ⑪ (M3 x 8) securing the Synthesizer/LCD board.



### ■ Power Transformer and Power Supply Board (Fig. 6-2b)

1. Remove three screws ⑪ retaining the power transformer and power supply board.
2. Remove two screws from transformer bracket.  
(When re-assembling, make sure of the correct direction to set the transformer bracket.)

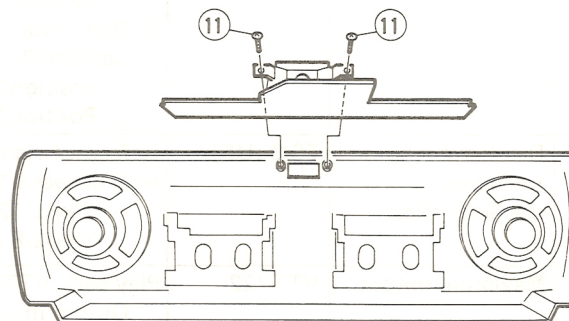


Fig. 6-6

## 7 Main Adjustments

### (1) Equipment and Measuring Instrument used for Adjustments

- Electronic voltmeter
- Audio frequency oscillator
- Attenuator
- Wow-flutter meter
- Frequency counter
- Standard signal generator
- Torque testing cassette gauge CTG-N
- Alignment tape
- Measuring tape : TS-8 (UR)

## (2) Function of Cassette

- **Condition for Measurement**

[illegible]

Reference output . . . Speaker : 0 dBs (0.775 V)/8  $\Omega$   
Headphone : -13 dBs (0.173 V)/32  $\Omega$   
3D : 12  $\Omega$

Reference Input . . . . Ext. MIC : -46 dBs

TAPE/EXT MODE : TAPE NORMAL  
FUNCTION : NORMAL SPEED  
SEA : Center  
3D : OFF  
BEAT CUT : NORMAL

- **Routine of Check and Adjustment**

No.	Item	Measuring Tape	Check and Adjustment	Adjusting Point
1	Tape speed and Wow-flutter check · adjustment	VTT712 (3 kHz)	Play back the end portion of the VTT712 test tape and check up the following standards. • B Deck : at Normal speed      3000 Hz ± 30 Hz at Normal speed      Less than 0.38% (JIS UNWTD) • A Deck : at Normal speed      ±80 Hz against B Deck at Normal speed      Less than 0.38% (JIS UNWTD)	VR331 Check Check Check
2	High-speed and Synchro dubbing check	VTT712 (3 kHz) TS-8 (UR)	1) Loading VTT712 on A Deck and Blank tape TS-8(UR) on B deck. 2) Function position : HIGH SPEED 3) B Deck : REC/PAUSE 4) B Deck pause to be released when playing A Deck, then start High-speed dubbing. 5) High speed : Within 5600 Hz ± 400 Hz to be check	Check
3	Head azimuth adjustment	VTT703L (10 kHz)	1) Play back VTT703L, both A and B Deck. 2) Obtain maximum Playback output for this adjustment. 3) Phase difference to be minimized. 4) Screw lock to be applied after adjustment.	Left side screw of PB or R/P head
4	Playback output level check	VTT724 (1 kHz)	Play back the VTT724 tape on B Deck and confirm that level difference between R and L channels is within 4 dB. (Measuring point : Headphone output)	Check
5	Playback frequency characteristics	VTT736 (1 kHz/125Hz, 1 kHz/8 kHz)	1) Play back VTT736 difference level against 1 kHz. A Deck, B Deck . . . . Measuring point : Headphone output 1 kHz/125 Hz : 0 dB ± 4 dB 1 kHz/8 kHz : 1 dB ± 4 dB	Check
			2) Tape mode switched to Metal/CrO <sub>2</sub> Play back VTT736 and check the difference between 1 kHz and 8 kHz at Headphone output. B Deck : within -1 dB ± 3 dB	Check
6	Bias frequency		1) B Deck : REC mode, Beat Cut : Position 1 2) Leakage of Bias at Headphone to be checked with frequency counter. 72 kHz ± 3 kHz to be adjusted with L321 3) Bias frequency to be checked for beat cut position 2 and position 3. Position 2 : 70 kHz ± 3 kHz Position 3 : 68 kHz ± 3 kHz	L321
7	Rec/Playback frequency characteristics	TS-8 (UR)	Reference signal -20 dB to be applied to Mic, and difference level between 125 Hz and 8 kHz against 1 kHz to be checked. 1 kHz/125 Hz : -2 dB ± 4 dB 1 kHz/8 kHz : +2 dB <sup>+5</sup> / <sub>-4</sub> dB	Check
8	Maximum output	VTT722	Play back VTT722. Measuring point : Headphone output Output more than 28 mW (0.95 V) at SEA max.	Check



### (3) Tuner Section

#### 1.) Condition

- Supply voltage : AC 110-120/220-240 V(50/60 Hz)  
DC 12 V
- Applied voltage of the Tuner : DC 6V
- Reference output : Speaker ; 20 mW (0.4 V)/8  $\Omega$   
Headphone; 0.3 mW (0.1 V)/32  $\Omega$
- Input signal : (AM) Modulation frequency ; 400 Hz, 30%  
(FM) Modulation frequency; 400 Hz, 225 kHz dev.
- Set position of Volume and Switch : SEA ; Center  
3D ; OFF

#### 2.) Attentive point

- Connection of IF sweeper :  
Connect a 30 pF capacitor and a 33 k $\Omega$  resistor in series to the sweeper's output while 0.082  $\mu$ F capacitor and a 100 k $\Omega$  resistor in parallel to the input.
- IF sweeper's output level :  
Set as minimum as enough for adjustment.
- FM MPX adjustment :  
For this adjustment, connect a 100 k $\Omega$  resistor in series to a frequency counter's input.

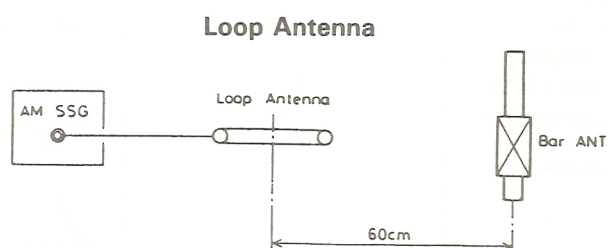


Fig. 7-1

#### ■ Location of Adjustment

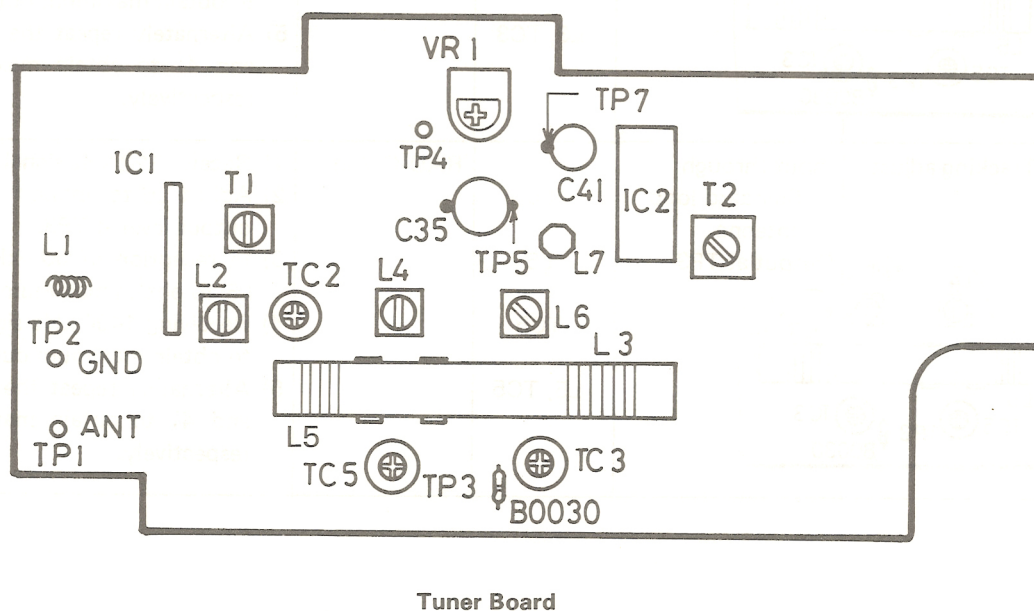
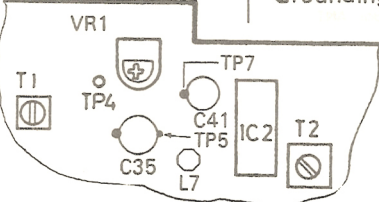

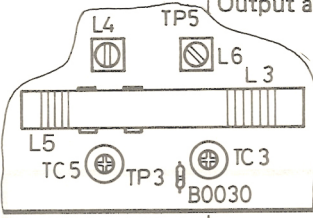
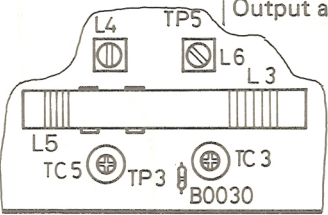
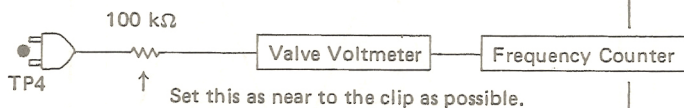
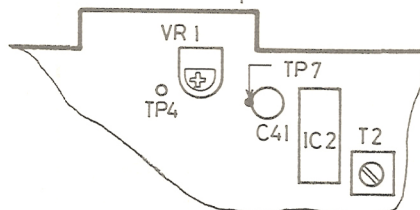
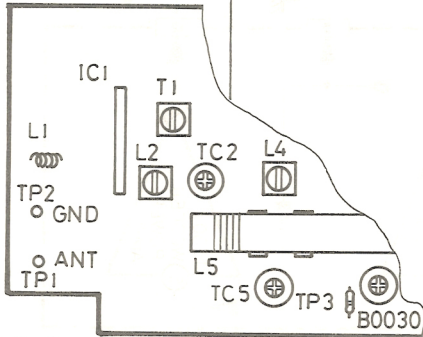


Fig. 7-2

● Routine of Check and Adjustment

No.	Item	Check Point	Adjustment Position	Condition	Adjustment, Confirmation
1	AM IF adjustment Since the AM IF circuit of this model is non-adjusting subject, do not disturb or adjust T2 unless it needs to be adjusted after repair.		T2	RADIO/AM	In reception of 1404kHz signal, adjust T2 for the best sensitivity.
2	FM IF adjustment Since the FM IF circuit of this model is non-adjusting subject, do not disturb or adjust T1 unless it needs to be adjusted after repair.	Input: Hot side: Connect a clip to IC1 by clipping it. Output (dis-criminated) Hot side : TP5 Grounding side: TP7 	T1  L7	Tune to a frequency near 108 MHz not to receive any input signal.	1) Remove L7 once to obtain single-peak waveform, and adjust T1 to maximize 10.7 MHz signal level. 2) After the adjustment, set and connect L7 as it was. 
3	LW RF Tracking adjustment 	Input through Standard loop antenna Output at TP3	L4  L3  TC3  L3, TC3	RADIO/LW	1) Receive 144 kHz signal. 2) Adjust L4 to obtain 1.3 V ± 0.05 V as output level at TP3. 3) In reception of 144 kHz signal adjust L3 to obtain maximum output level. 4) Receiving 290 kHz signal, adjust TC3 to obtain maximum output level. 5) Alternately repeat the above steps 3) and 4) to obtain maximum outputs respectively.
4	MWRF Tracking adjustment 	Input through Standard loop antenna Output at TP3	L6  L5  TC5  L5, TC5	RADIO/AM	1) Receive 522 kHz signal. 2) Adjust L6 to obtain 1.2 V ± 0.05 V as output level at TP3. 3) In reception of 603 kHz signal adjust L5 to obtain maximum output level. 4) Receiving 1404 kHz signal, adjust TC5 to obtain maximum output level. 5) Alternately repeat the above steps 3) and 4) to obtain maximum outputs respectively.

No.	Item	Check Point	Adjustment Position	Condition	Adjustment, Confirmation
5	FM RF Tracking adjustment	Input : TP1 Output : TP3	L1  L2  TC2  L2, TC2	RADIO/FM	1) In reception of 87.5 MHz signal, adjust L1 to obtain $1.1^{+0.1}_{-0.05}$ V as output level at TP3. 2) After the adjustment, apply wax to L1 to secure it. 3) In reception of 88.0 MHz signal, adjust L2 to obtain maximum output level. 4) In reception of 106 MHz signal, adjust TC2 for maximum output. 5) Alternately repeat the above steps 3) and 4) to obtain maximum outputs respectively.
6	FM MPX (multiplex) adjustment	Output: Hot side: TP4 Grounding side: TP7	VR1	RADIO/FM	1) Receive FM signal of non-modulated 106 MHz, 60 dB. 2) Connect a valve voltmeter to TP4 with a 100 k $\Omega$ resistor between them. 3) In the condition that TP4's output level is set so high that the valve voltmeter reads to the full extent, supply the output from the voltmeter to a frequency counter for measurement. 4) Adjust VR1 so that the frequency counter reads $75.75 \pm 0.1$ kHz. 5) Check up frequency separation.





# 8 Block Diagrams

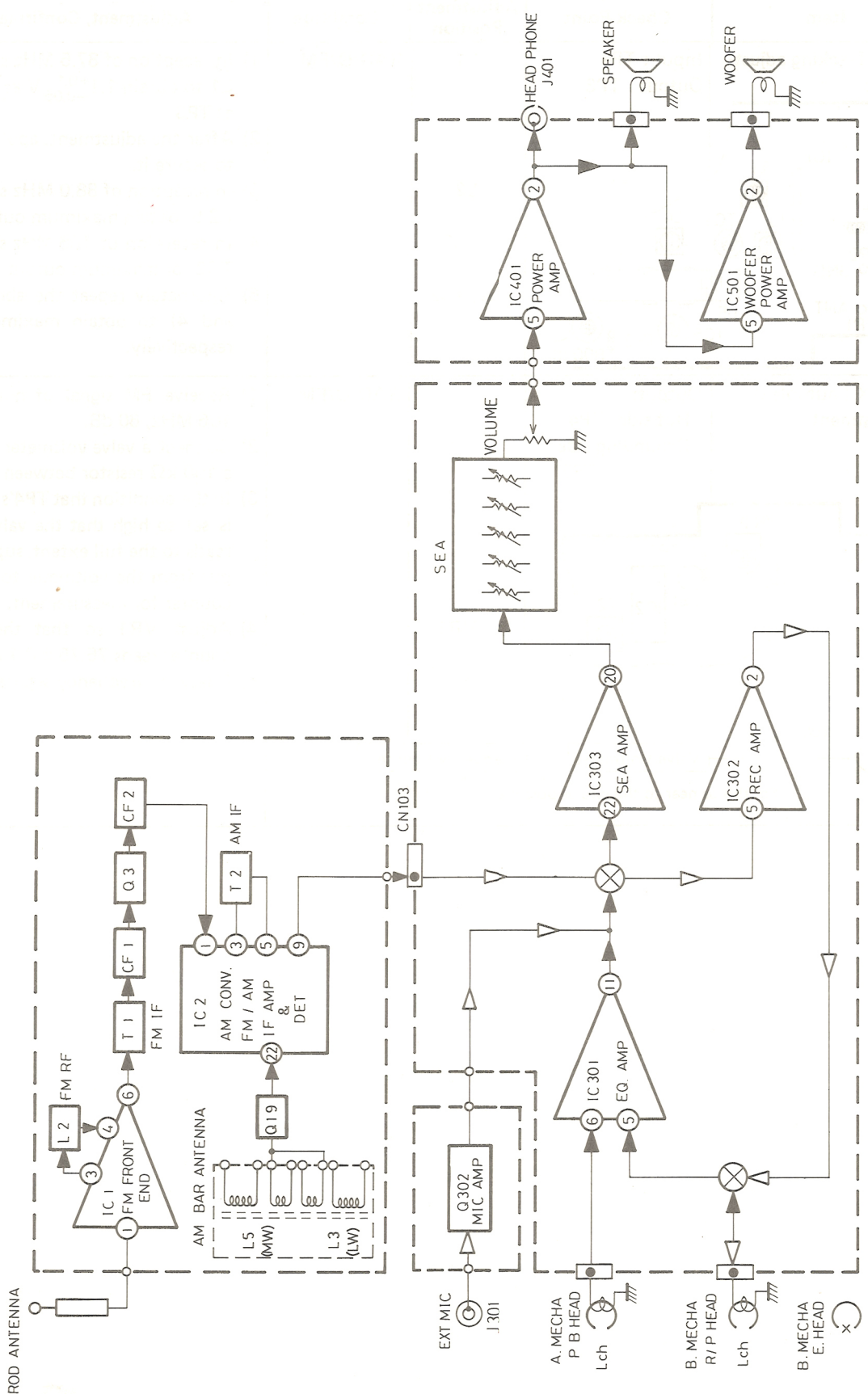


Fig. 8-1



# 9 Wiring Connections

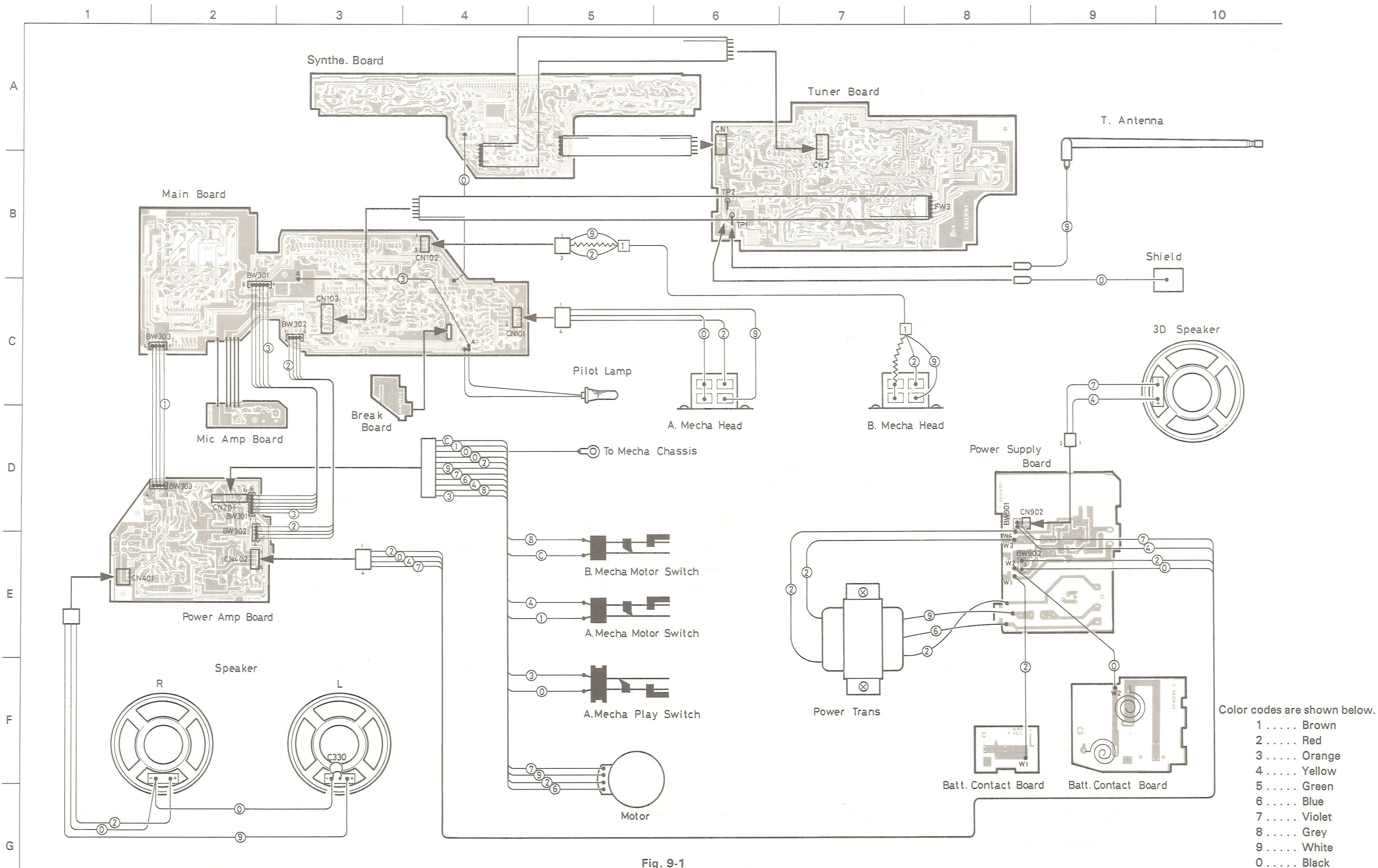
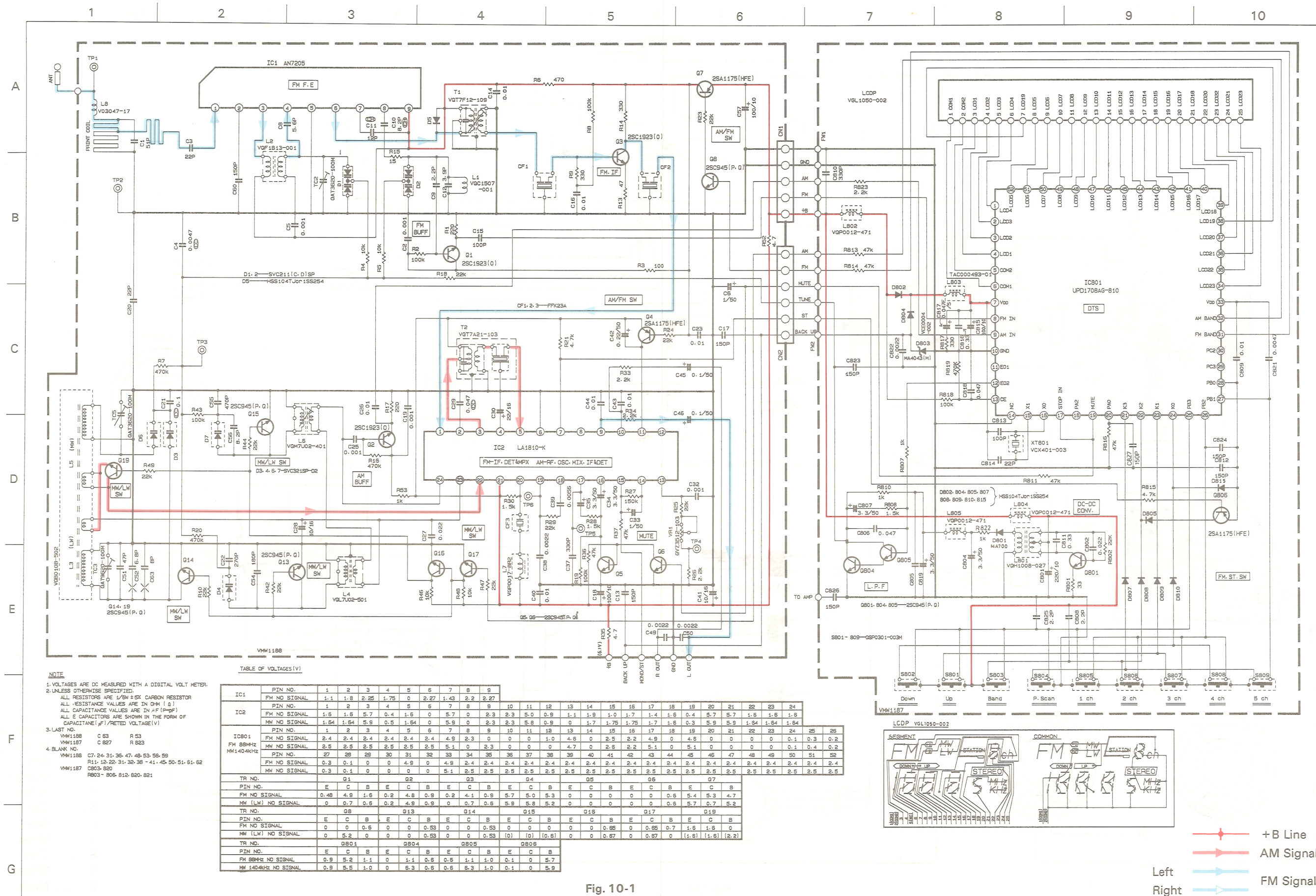


Fig. 9-1



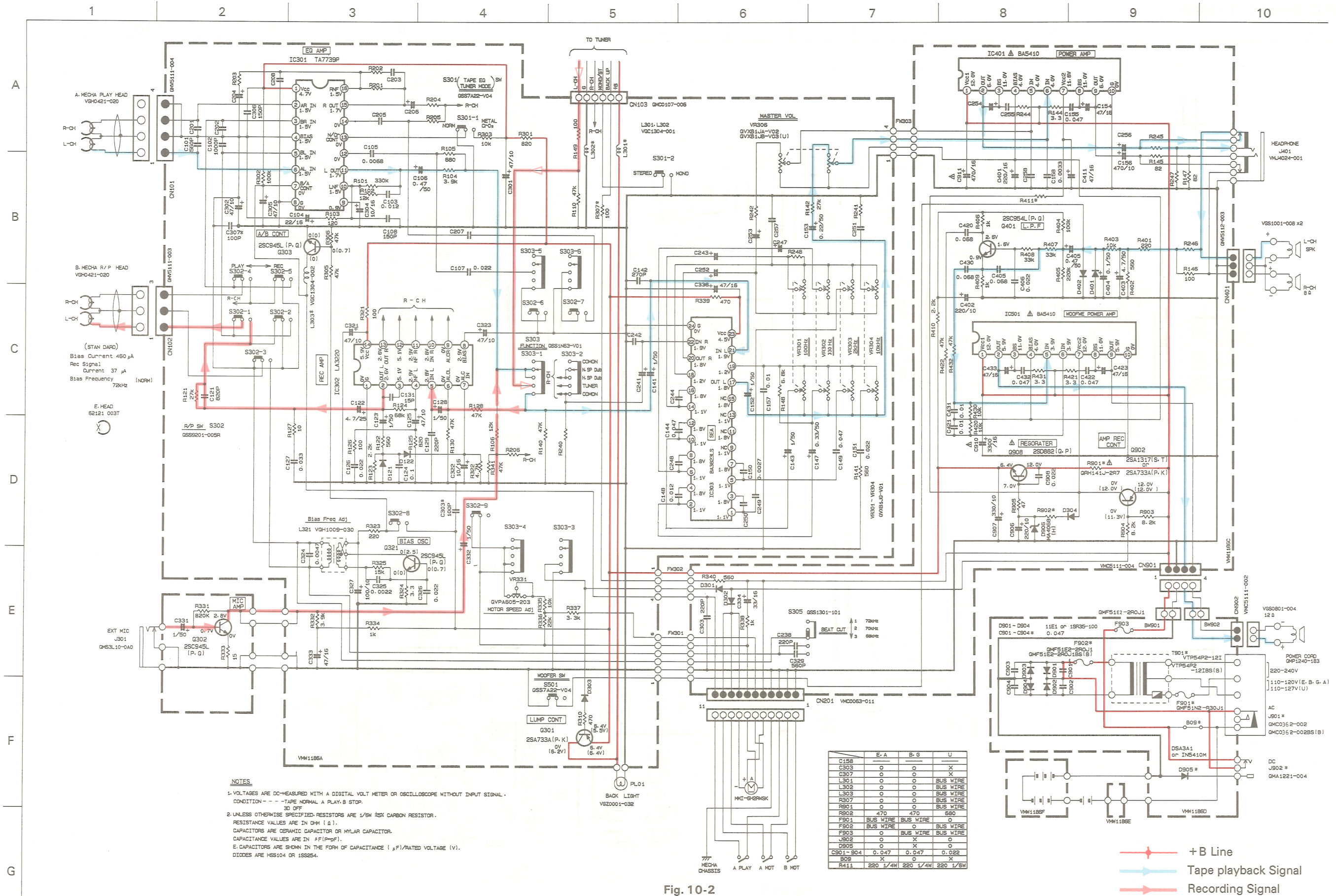
## 10 Standard Schematic Diagram (Tuner Section)



**Fig. 10-1**



## Standard Schematic Diagram (Amplifier Section)









**Fig. 11-2**



(The Parts List Can be found on page 22.)

■ Tuner Board (# 1~500)

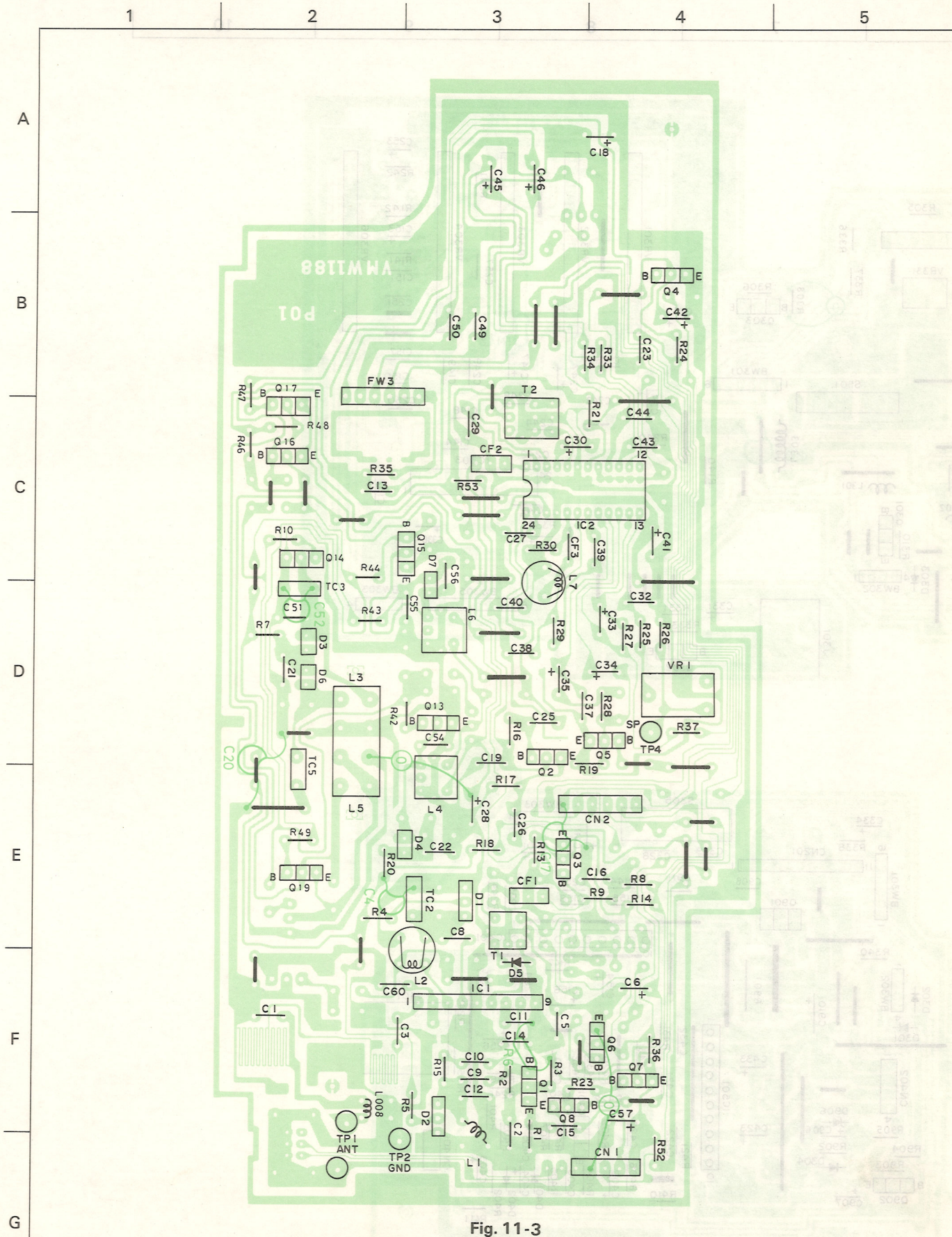


Fig. 11-3

■ Tuner Board (# 501~)

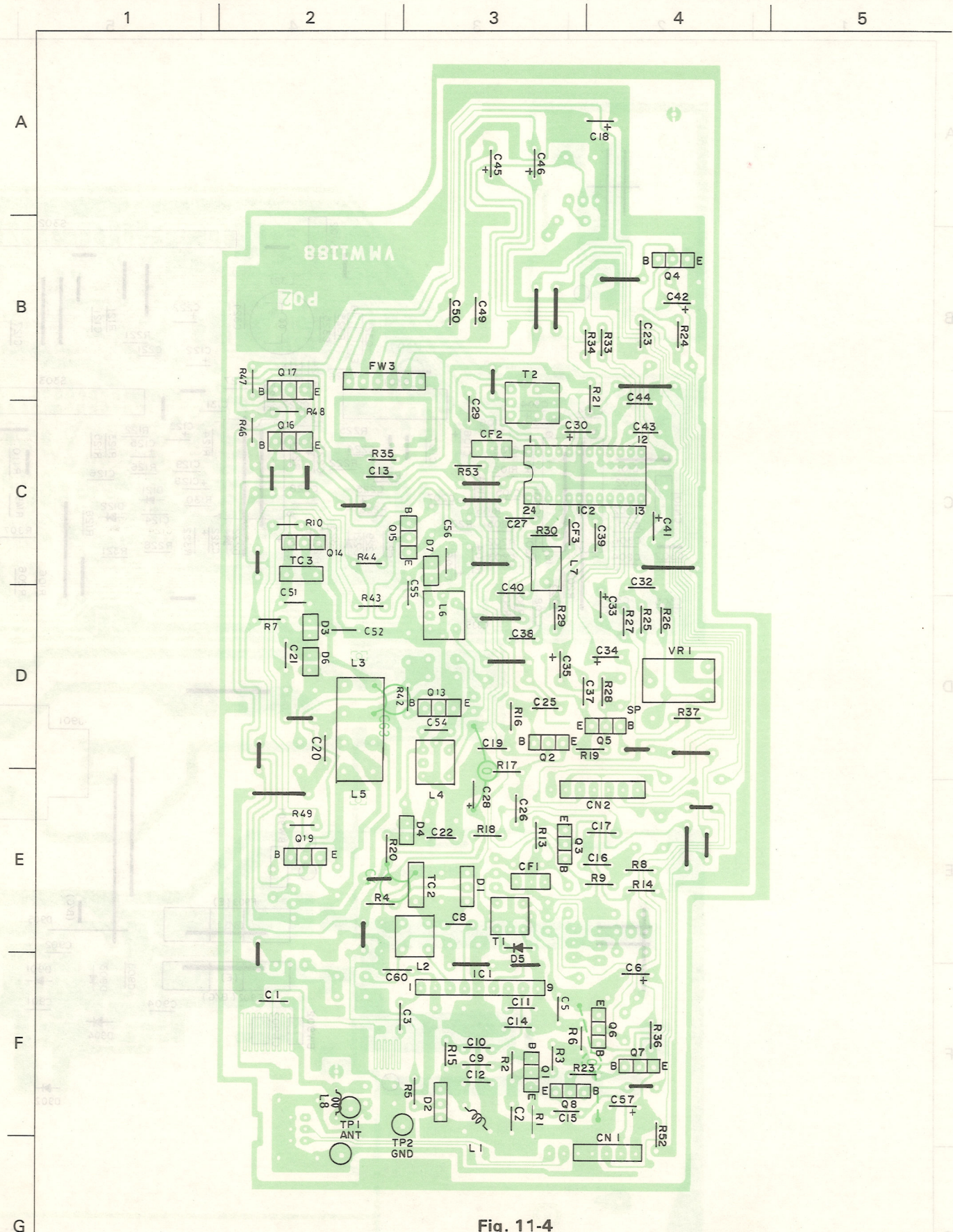


Fig. 11-4



■ Main P.C. Board Parts List

△	REF. NO	PARTS NO.	PARTS NAME	DESCRIPTION
	CN101	QMV5011-004	CONNECTOR	
	CN102	QMV5011-003	CONNECTOR	
	CN103	VMC0107-006	SOCKET	
	CN201	VMC0063-011	CONNECTOR	
	CN401	QMV5012-003	CONNECTOR	
	CN402	QMV5011-004	CONNECTOR	
	CN902	QMV5011-002	CONNECTOR	
	C101	QCCB1HK-561Y	C.CAPACITOR	560PF 10% 50V
	C102	QCS11HJ-681	C.CAPACITOR	680PF 5% 50V
	C103	QCC31EM-123ZV	C.CAPACITOR	.012MF 20% 25V
	C104	QETB1CM-226	E.CAPACITOR	22MF 20% 16V
	C105	QCY31HK-682Z	C.CAPACITOR	6800PF 10% 50V
	C106	QETC1HM-474ZN	E.CAPACITOR	.47MF 20% 50V
	C107	QCC31EM-223ZV	C.CAPACITOR	.022MF 20% 25V
	C108	QCCB1HK-151Y	C.CAPACITOR	150PF 10% 50V
	C121	QCS11HJ-821	C.CAPACITOR	820PF 5% 50V
	C122	QETC1EM-475ZN	E.CAPACITOR	4.7MF 20% 25V
	C123	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C124	QCC31EM-104ZV	C.CAPACITOR	.10MF 20% 25V
	C125	QETC1AM-476ZN	E.CAPACITOR	.47MF 20% 10V
	C126	QCC31EM-683ZV	C.CAPACITOR	.068MF 20% 25V
	C127	QCC31EM-333ZV	C.CAPACITOR	.033MF* 20% 25V
	C128	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C129	QCCB1HK-221Y	C.CAPACITOR	220PF 10% 50V
	C131	QCSB1HJ-150Y	C.CAPACITOR	15PF 5% 50V
	C141	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C142	QCCB1HK-271Y	C.CAPACITOR	270PF 10% 50V
	C143	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C144	QCC31EM-473ZV	C.CAPACITOR	.047MF 20% 25V
	C147	QETA1HM-334N	E.CAPACITOR	.33MF 20% 50V
	C148	QCC11EM-123V	C.CAPACITOR	.012MF 20% 25V
	C149	QCC31EM-473ZV	C.CAPACITOR	.047MF 20% 25V
	C150	QCY31HK-272Z	C.CAPACITOR	2700PF 10% 50V
	C151	QCC31EM-223ZV	C.CAPACITOR	.022MF 20% 25V
	C152	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C153	QETC1HM-224ZN	E.CAPACITOR	.22MF 20% 50V
	C154	QETC1CM-476ZN	E.CAPACITOR	.47MF 20% 16V
	C155	QCC31EM-473ZV	C.CAPACITOR	.047MF 20% 25V
	C156	QETB1AM-477N	E.CAPACITOR	.470MF 20% 10V
	C157	QCC31EM-103ZV	C.CAPACITOR	.010MF 20% 25V
	C158	QCCB1CM-332Y	C.CAPACITOR	3300PF 20% 16V
	C201	QCCB1HK-561Y	C.CAPACITOR	560PF 10% 50V
	C202	QCS11HJ-681	C.CAPACITOR	680PF 5% 50V
	C203	QCC31EM-123ZV	C.CAPACITOR	.012MF 20% 25V
	C204	QETB1CM-226	E.CAPACITOR	22MF 20% 16V
	C205	QCY31HK-682Z	C.CAPACITOR	6800PF 10% 50V
	C206	QETC1HM-474ZN	E.CAPACITOR	.47MF 20% 50V
	C207	QCC31EM-223ZV	C.CAPACITOR	.022MF 20% 25V
	C208	QCCB1HK-151Y	C.CAPACITOR	150PF 10% 50V
	C221	QCS11HJ-821	C.CAPACITOR	820PF 5% 50V
	C222	QETC1EM-475ZN	E.CAPACITOR	4.7MF 20% 25V
	C223	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C224	QCC31EM-104ZV	C.CAPACITOR	.10MF 20% 25V
	C225	QETC1AM-476ZN	E.CAPACITOR	.47MF 20% 10V
	C226	QCC31EM-683ZV	C.CAPACITOR	.068MF 20% 25V
	C227	QCC31EM-333ZV	C.CAPACITOR	.033MF 20% 25V
	C228	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C229	QCCB1HK-221Y	C.CAPACITOR	220PF 10% 50V
	C231	QCSB1HJ-150Y	C.CAPACITOR	15PF 5% 50V
	C241	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C242	QCCB1HK-271Y	C.CAPACITOR	270PF 10% 50V
	C243	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C244	QCC31EM-473ZV	C.CAPACITOR	.047MF 20% 25V
	C247	QETA1HM-334N	E.CAPACITOR	.33MF 20% 50V
	C248	QCC11EM-123V	C.CAPACITOR	.012MF 20% 25V
	C249	QCC31EM-473ZV	C.CAPACITOR	.047MF 20% 25V
	C250	QCY31HK-272Z	C.CAPACITOR	2700PF 10% 50V
	C251	QCC31EM-223ZV	C.CAPACITOR	.022MF 20% 25V
	C252	QETC1HM-105ZN	E.CAPACITOR	1.0MF 20% 50V
	C253	QETC1HM-224ZN	E.CAPACITOR	.22MF 20% 50V
	C254	QETC1CM-476ZN	E.CAPACITOR	.47MF 20% 16V
	C255	QCC31EM-473ZV	C.CAPACITOR	.047MF 20% 25V
	C256	QETB1AM-477N	E.CAPACITOR	.470MF 20% 10V
	C257	QCC31EM-103ZV	C.CAPACITOR	.010MF 20% 25V
	C258	QCCB1CM-332Y	C.CAPACITOR	3300PF 20% 16V
	C301	QER61CM-476Z	E.CAPACITOR	.47MF 20% 16V
	C302	QETC1AM-476ZN	E.CAPACITOR	.47MF 20% 10V
	C303	QCCB1HK-221Y	C.CAPACITOR	220PF 10% 50V
	C304	QETC1CM-106ZN	E.CAPACITOR	10MF 20% 16V
	C305	QER61CM-476Z	E.CAPACITOR	.47MF 20% 16V
	C306	QCCB1HK-151Y	C.CAPACITOR	150PF 10% 50V
	C307	QCS11HJ-101	C.CAPACITOR	100PF 5% 50V
	C321	QETC1AM-476ZN	E.CAPACITOR	.47MF 20% 10V
	C322	QETC1CM-106ZN	E.CAPACITOR	10MF 20% 16V
	C323	QETC1AM-476ZN	E.CAPACITOR	.47MF 20% 10V
	C324	QFN81HJ-47Z	M.CAPACITOR	4700PF 5% 50V
	C325	QCY31HK-222Z	C.CAPACITOR	2200PF 10% 50V
	C326	QCC31EM-223ZV	C.CAPACITOR	.022MF 20% 25V
	C327	QETC1AM-107ZN	E.CAPACITOR	100MF 20% 10V
	C328	QCCB1HK-221Y	C.CAPACITOR	220PF 10% 50V
	C329	QCCB1HK-561Y	C.CAPACITOR	560PF 10% 50V
	C331	QER61HM-105ZM	E.CAPACITOR	1.0MF 20% 50V
	C332	QER61HM-105ZM	E.CAPACITOR	1.0MF 20% 50V
	C333	QER61CM-476Z	E.CAPACITOR	.47MF 20% 16V
	C334	QETC1CM-336ZN	E.CAPACITOR	.33MF 20% 16V
	C335	QETA1AM-477N	E.CAPACITOR	.470MF 20% 10V
	C336	QER61CM-476Z	E.CAPACITOR	.47MF 20% 16V
	C401	QETC1CM-227ZN	E.CAPACITOR	220MF 20% 16V
	C402	QETC1AM-227ZN	E.CAPACITOR	220MF 20% 10V
	C403	QETC1HM-475ZN	E.CAPACITOR	4.7MF 20% 50V

△	REF. NO	PARTS NO.	PARTS NAME	DESCRIPTION
	C404	QETC1HM-104ZN	E.CAPACITOR	.10MF 20% 50V
	C405	QETC1HM-474ZN	E.CAPACITOR	.47MF 20% 50V
	C406	QCC31EM-223ZV	C.CAPACITOR	.022MF 20% 25V
	C407	QCC31EM-683ZV	C.CAPACITOR	.068MF 20% 25V
	C411	QETC1CM-476ZN	E.CAPACITOR	.47MF 20% 16V
	C420	QCC31EM-683ZV	C.CAPACITOR	.068MF 20% 25V
	C421	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V
	C422	QCC31EM-473ZV	C.CAPACITOR	.047MF 20% 25V
	C423	QETC1CM-476ZN	E.CAPACITOR	.47MF 20% 16V
	C430	QCC31EM-683ZV	C.CAPACITOR	.068MF 20% 25V
	C431	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V
	C432	QCC31EM-473ZV	C.CAPACITOR	.047MF 20% 25V
	C433	QETC1CM-476ZN	E.CAPACITOR	.47MF 20% 16V
	C901	QCF31HP-473Z	C.CAPACITOR	.047MF +100:-0% 50V
	C902	QCF31HP-473Z	C.CAPACITOR	.047MF +100:-0% 50V
	C903	QCF31HP-473Z	C.CAPACITOR	.047MF +100:-0% 50V
	C904	QCF31HP-473Z	C.CAPACITOR	.047MF +100:-0% 50V
	C906	QETC1AM-227ZN	E.CAPACITOR	220MF 20% 10V
	C907	QETC1AM-337ZN	E.CAPACITOR	330MF 20% 10V
	C908	QCF31HP-223Z	C.CAPACITOR	.022MF +100:-0% 50V
	C910	QETB1CM-338N	E.CAPACITOR	3300MF 20% 16V
	C911	QETB1CM-477N	E.CAPACITOR	.470MF 20% 16V
	D121	1SS254T-77	SI DIODE	
	D122	1SS254T-77	SI DIODE	
	D221	1SS254T-77	SI DIODE	
	D222	1SS254T-77	SI DIODE	
	D301	1SS254T-77	SI DIODE	
	D302	1SS254T-77	SI DIODE	
	D303	1SS254T-77	SI DIODE	
	D304	1SS254T-77	SI DIODE	
	D401	1SS254T-77	SI DIODE	
	D402	1SS254T-77	SI DIODE	
	D901	1SR35-100AT-93	SI DIODE	
	D902	1SR35-100AT-93	SI DIODE	
	D903	1SR35-100AT-93	SI DIODE	
	D904	1SR35-100AT-93	SI DIODE	
	D905	1N5401M	DIODE	
	D906	MA4068(H)TA	Z DIODE	
	IC301	TA7739P	IC	
	IC302	LA3220	IC	
	IC303	BA3823LS	IC	
	IC401	BA5410	IC	
	IC501	BA5410	IC	
	J501	QMS3110-0A0	3.5 JACK(JES)	
	J601	VMJ4024-001	JACK	
	J901	QMC0362-002	AC SOCKET	
	J902	QMA1221-004	DC JACK	
	L301	VQC1304-001	COIL	
	L302	VQC1304-001	COIL	
	L303	VQC1304-002	COIL	
	L321	VQH1009-030	OSC COIL(BIAS)	
	PL01	VG20001-032	PILOT LAMP	
	Q301	2SA952(L,K)	TRANSISTOR	
	Q302	2SC945L(P,Q)-T	TRANSISTOR	
	Q303	2SC945L(P,Q)-T	TRANSISTOR	
	Q321	2SC945L(P,Q)-T	TRANSISTOR	
	Q401	2SC945L(P,Q)-T	TRANSISTOR	
	Q901	2SD882(Q,P)	TRANSISTOR	
	Q902	2SA733A(P,K)-T	TRANSISTOR	
	R101	QRD161J-334Y	CARBON RESISTOR	330K 5% 1/6W
	R102	QRD161J-123Y	CARBON RESISTOR	12K 5% 1/6W
	R103	QRD161J-121Y	CARBON RESISTOR	120 5% 1/6W
	R104	QRD161J-392Y	CARBON RESISTOR	3.9K 5% 1/6W
	R105	QRD161J-681Y	CARBON RESISTOR	680 5% 1/6W
	R106	QRD161J-123Y	CARBON RESISTOR	12K 5% 1/6W
	R110	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R121	QRD161J-273Y	CARBON RESISTOR	27K 5% 1/6W
	R122	QRD161J-561Y	CARBON RESISTOR	560 5% 1/6W
	R123	QRD161J-222Y	CARBON RESISTOR	2.2K 5% 1/6W
	R124	QRD161J-683Y	CARBON RESISTOR	68K 5% 1/6W
	R125	QRD161J-181Y	CARBON RESISTOR	180 5% 1/6W
	R126	QRD161J-330Y	CARBON RESISTOR	33 5% 1/6W
	R127	QRD161J-100Y	CARBON RESISTOR	10 5% 1/6W
	R128	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R130	QRD161J-332Y	CARBON RESISTOR	3.3K 5% 1/6W
	R140	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R141	QRD161J-561Y	CARBON RESISTOR	560 5% 1/6W
	R142	QRD161J-273Y	CARBON RESISTOR	27K 5% 1/6W
	R144	QRD161J-3R3Y	CARBON RESISTOR	3.3 5% 1/6W
	R145	QRD161J-820Y	CARBON RESISTOR	82 5% 1/6W
	R146	QRD161J-101Y	CARBON RESISTOR	100 5% 1/6W
	R147	QRD161J-820Y	CARBON RESISTOR	82 5% 1/6W
	R148	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W
	R149	QRD161J-101Y	CARBON RESISTOR	100 5% 1/6W
	R201	QRD161J-334Y	CARBON RESISTOR	330K 5% 1/6W
	R202	QRD161J-123Y	CARBON RESISTOR	12K 5% 1/6W
	R203	QRD161J-121Y	CARBON RESISTOR	120 5% 1/6W
	R204	QRD161J-392Y	CARBON RESISTOR	3.9K 5% 1/6W
	R205	QRD161J-681Y	CARBON RESISTOR	680 5% 1/6W
	R206	QRD161J-123Y	CARBON RESISTOR	12K 5% 1/6W
	R210	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R221	QRD161J-273Y	CARBON RESISTOR	27K 5% 1/6W
	R222	QRD161J-561Y	CARBON RESISTOR	560 5% 1/6W
	R223	QRD161J-222Y	CARBON RESISTOR	2.2K 5% 1/6W
	R224	QRD161J-683Y	CARBON RESISTOR	68K 5% 1/6W
	R225	QRD161J-181Y	CARBON RESISTOR	180 5% 1/6W
	R226	QRD161J-330Y	CARBON RESISTOR	33 5% 1/6W
	R227	QRD161J-100Y	CARBON RESISTOR	10 5% 1/6W
	R228	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R230	QRD161J-332Y	CARBON RESISTOR	3.3K 5% 1/6W

△	REF. NO	PARTS NO.	PARTS NAME	DESCRIPTION
	R240	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R241	QRD161J-561Y	CARBON RESISTOR	560 5% 1/6W
	R242	QRD161J-273Y	CARBON RESISTOR	27K 5% 1/6W
	R245	QRD161J-820Y	CARBON RESISTOR	82 5% 1/6W
	R246	QRD161J-101Y	CARBON RESISTOR	100 5% 1/6W
	R247	QRD161J-820Y	CARBON RESISTOR	82 5% 1/6W
	R248	QRD161J-682	CARBON RESISTOR	6.8K 5% 1/6W
	R249	QRD143J-101S	CARBON RESISTOR	100 5% 1/4W
	R301	QRD161J-821Y	CARBON RESISTOR	820 5% 1/6W
	R302	QRD161J-104Y	CARBON RESISTOR	100K 5% 1/6W
	R303	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
	R305	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R306	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R307	QRD143J-101S	CARBON RESISTOR	100 5% 1/4W
	R308	QRD161J-820	CARBON RESISTOR	82 5% 1/6W
	R310	QRD161J-471Y	CARBON RESISTOR	470 5% 1/6W
	R321	QRD161J-101Y	CARBON RESISTOR	100 5% 1/6W
	R322	QRD161J-475YT	C RESISTOR	4.7M 5% 1/6W
	R323	QRD161J-221Y	CARBON RESISTOR	220 5% 1/6W
	R324	QRD161J-3R3Y	CARBON RESISTOR	3.3 5% 1/6W
	R325	QRD161J-153Y	CARBON RESISTOR	15K 5% 1/6W
	R331	QRD161J-824Y	CARBON RESISTOR	820K 5% 1/6W
	R332	QRD161J-392Y	CARBON RESISTOR	3.9K 5% 1/6W
	R333	QRD143J-150S	CARBON RESISTOR	15 5% 1/4W
	R334	QRD161J-102Y	CARBON RESISTOR	1.0K 5% 1/6W
	R335	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
	R336	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
	R337	QRD161J-332Y	CARBON RESISTOR	3.3K 5% 1/6W
	R338	QRD161J-102Y	CARBON RESISTOR	1.0K 5% 1/6W
	R339	QRD161J-471Y	CARBON RESISTOR	470 5% 1/6W
	R340	QRD161J-561Y	CARBON RESISTOR	560 5% 1/6W
	R341	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R401	QRD161J-221Y	CARBON RESISTOR	220 5% 1/6W
	R402	QRD161J-561Y	CARBON RESISTOR	560 5% 1/6W
	R403	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
	R404	QRD161J-104Y	CARBON RESISTOR	100K 5% 1/6W
	R405	QRD143J-224S	CARBON RESISTOR	220K 5% 1/4W
	R406	QRD161J-102Y	CARBON RESISTOR	1.0K 5% 1/6W
	R407	QRD161J-333Y	CARBON RESISTOR	3.3K 5% 1/6W
	R408	QRD161J-333Y	CARBON RESISTOR	3.3K 5% 1/6W
	R409	QRD161J-102Y	CARBON RESISTOR	1.0K 5% 1/6W
	R410	QRD161J-222Y	CARBON RESISTOR	2.2K 5% 1/6W
	R411	QRD143J-221S	CARBON RESISTOR	220 5% 1/4W
	R420	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
	R421	QRD161J-3R3Y	CARBON RESISTOR	3.3 5% 1/6W
	R422	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
	R430	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
	R431	QRD161J-3R3Y	CARBON RESISTOR	3.3 5% 1/6W
	R432	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
△	R901	QRH141J-2R7	FUSI RESISTOR	2.7 5% 1/4W



(The Parts List Can be found on page 24.)

■ Synthesizer/LCD Board (# 1~500)

## ■ Tuner Board Parts List

REF. NO	PARTS NO.	PARTS NAME	DESCRIPTION
*CF01	FFK23A	C FILTER KIT	
CN01	VMC0107-005	CONNECTOR	
CN02	VMC0107-006	SOCKET	
C001	QCSB1HJ-510Y	C CAPACITOR	51PF 5% 50V
C002	QCSB1HK-102Y	C CAPACITOR	1000PF 10% 50V
C003	QCSB1HJ-220Y	C CAPACITOR	22PF 5% 50V
C004	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V
C005	QCSB1HK-102Y	C CAPACITOR	1000PF 10% 50V
C006	QETC1HM-105ZN	E CAPACITOR	1.0MF 20% 50V
C008	QCSB1HK-5R6Y	C CAPACITOR	5.6PF 10% 50V
C009	QCT30CH-2R2Y	C CAPACITOR	2.2PF 5% 50V
C010	QCT30CH-8R2Y	C CAPACITOR	8.2PF 5% 50V
C011	QCT30CH-120Y	C CAPACITOR	12PF 5% 50V
C012	QCT30CH-3R9Y	C CAPACITOR	3.9PF 5% 50V
C013	QCB1HK-151Y	C CAPACITOR	150PF 10% 50V
C014	QCVB1CM-103Y	C CAPACITOR	.010MF 20% 16V
C015	QCB1HK-101Y	C CAPACITOR	100PF 10% 50V
C016	QCVB1CM-103Y	C CAPACITOR	.010MF 20% 16V
C017	QCB1HK-151Y	C CAPACITOR	150PF 10% 50V
C018	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V
C019	QCB1HK-102Y	C CAPACITOR	1000PF 10% 50V
C020	QCSB1HJ-220Y	C CAPACITOR	22PF 5% 50V
C021	QCC31EM-104ZV	C CAPACITOR	.10MF 20% 25V
C022	QCS31HJ-271Z	C CAPACITOR	270PF 5% 50V
C023	QCVB1CM-103Y	C CAPACITOR	.010MF 20% 16V
C025	QCB1HK-102Y	C CAPACITOR	1000PF 10% 50V
C026	QCF31HP-103Z	C CAPACITOR	.010MF +100%-0% 50V
C027	QCF31HP-223Z	C CAPACITOR	.022MF +100%-0% 50V
C028	QETC1CM-106ZN	E CAPACITOR	10MF 20% 16V
C029	QCC31EM-473ZV	C CAPACITOR	.047MF 20% 25V
C030	QETC1CM-226ZN	E CAPACITOR	22MF 20% 16V
C032	QFS41HJ-102	P.S. CAPACITOR	1000PF 5% 50V
C033	QETC1HM-105ZN	E CAPACITOR	1.0MF 20% 50V
C034	QETC1HM-335ZN	E CAPACITOR	3.3MF 20% 50V
C035	QETC1HM-335ZN	E CAPACITOR	3.3MF 20% 50V
C037	QCB1HK-331Y	C CAPACITOR	330PF 10% 50V
C038	QCVB1CM-222Y	C CAPACITOR	2200PF 20% 16V
C039	QCVB1CM-562Y	C CAPACITOR	5600PF 20% 16V
C040	QCF31HP-103Z	C CAPACITOR	.010MF +100%-0% 50V
C041	QETC1CM-106ZN	E CAPACITOR	10MF 20% 16V
C042	QETC1HM-224ZN	E CAPACITOR	.22MF 20% 50V
C043	QCC31EM-103ZV	C CAPACITOR	.010MF 20% 25V
C044	QCC31EM-103ZV	C CAPACITOR	.010MF 20% 25V
C045	QETC1HM-104ZN	E CAPACITOR	.10MF 20% 50V
C046	QETC1HM-104ZN	E CAPACITOR	.10MF 20% 50V
C049	QCVB1CM-222Y	C CAPACITOR	2200PF 20% 16V
C050	QCVB1CM-222Y	C CAPACITOR	2200PF 20% 16V
C051	QCSB1HJ-470Y	C CAPACITOR	47PF 5% 50V
C052	QCSB1HK-6R8Y	C CAPACITOR	6.8PF 10% 50V
C054	QCSB1HK-181Y	C CAPACITOR	180PF 10% 50V
C055	QCS31HJ-471Z	C CAPACITOR	470PF 5% 50V
C056	QCT30CH-8R2Y	C CAPACITOR	8.2PF 5% 50V
C057	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V
C060	QCB1HK-151Y	C CAPACITOR	150PF 10% 50V
C063	QCS1HJ-8R0	C CAPACITOR	8.0PF 5% 50V
D001	SVC211(C,D)SP	VARI. CAP	
D002	SVC211(C,D)SP	VARI. CAP	
D003	SVC321SP-D2	V. DIODE	
D004	SVC321SP-D2	V. DIODE	
D005	HSS104TJ	SI DIODE	
D006	SVC321SP-D2	V. DIODE	
D007	SVC321SP-D2	V. DIODE	
IC01	AN7205	IC	
IC02	LA1810-K	IC	
L001	VQC1507-001	INDUCTOR	
L002	VQF1813-001	RF COIL	
L003	VQB010B-502	BAR ANTENA	
L004	VQL7U02-501	OSC COIL(LW)	
L005	VQB010B-502	BAR ANTENA	
L006	VQM7U02-401	OSC COIL(MW)	
L007	VQP0012-8R2	INDUCTOR	
L008	VQ3047-17	COIL	
Q001	2SC1923(O)E2	TRANSISTOR	
Q002	2SC1923(O)E2	TRANSISTOR	
Q003	2SC1923(O)E2	TRANSISTOR	
Q004	2SA1175(HFE)-T	TRANSISTOR	
Q005	2SC945(P,Q)-T	TRANSISTOR	
Q006	2SC945(P,Q)-T	TRANSISTOR	
Q007	2SA1175(HFE)-T	TRANSISTOR	
Q008	2SC945(P,Q)-T	TRANSISTOR	
Q013	2SC945(P,Q)-T	TRANSISTOR	
Q014	2SC945(P,Q)-T	TRANSISTOR	
Q015	2SC945(P,Q)-T	TRANSISTOR	
Q016	2SC945(P,Q)-T	TRANSISTOR	
Q017	2SC945(P,Q)-T	TRANSISTOR	
Q019	2SC945(P,Q)-T	TRANSISTOR	
R001	QRD161J-221Y	CARBON RESISTOR	220 5% 1/6W
R002	QRD161J-104Y	CARBON RESISTOR	100K 5% 1/6W
R003	QRD161J-101Y	CARBON RESISTOR	100 5% 1/6W
R004	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
R005	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
R006	QRD161J-471Y	CARBON RESISTOR	470 5% 1/6W
R007	QRD161J-474Y	CARBON RESISTOR	470K 5% 1/6W
R008	QRD161J-104Y	CARBON RESISTOR	100K 5% 1/6W
R009	QRD161J-331Y	CARBON RESISTOR	330 5% 1/6W
R010	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R013	QRD161J-470Y	CARBON RESISTOR	47 5% 1/6W
R014	QRD161J-331Y	CARBON RESISTOR	330 5% 1/6W
R015	QRD161J-150Y	CARBON RESISTOR	15 5% 1/6W
R016	QRD161J-474Y	CARBON RESISTOR	470K 5% 1/6W

## \*Notice

Contents of CF01  
CF01: VCF2L3B-104  
CF02: VCF2L3B-104  
CF03: VCF1Z2Z-101

REF. NO	PARTS NO.	PARTS NAME	DESCRIPTION
R017	QRD161J-221Y	CARBON RESISTOR	220 5% 1/6W
R018	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R019	QRD161J-104Y	CARBON RESISTOR	100K 5% 1/6W
R020	QRD161J-474Y	CARBON RESISTOR	470K 5% 1/6W
R021	QRD161J-472Y	CARBON RESISTOR	4.7K 5% 1/6W
R023	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R024	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R025	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R026	QRD161J-222Y	CARBON RESISTOR	2.2K 5% 1/6W
R027	QRD161J-154Y	CARBON RESISTOR	150K 5% 1/6W
R028	QRD161J-152Y	CARBON RESISTOR	1.5K 5% 1/6W
R029	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R030	QRD161J-152Y	CARBON RESISTOR	1.5K 5% 1/6W
R033	QRD161J-222Y	CARBON RESISTOR	2.2K 5% 1/6W
R034	QRD161J-222Y	CARBON RESISTOR	2.2K 5% 1/6W
R035	QRD161J-47Y	C RESISTOR	4.7 5% 1/6W
R036	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
R037	QRD161J-473Y	CARBON RESISTOR	47K 5% 1/6W
R042	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R043	QRD161J-104Y	CARBON RESISTOR	100K 5% 1/6W
R044	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R046	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
R047	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R048	QRD161J-103Y	CARBON RESISTOR	10K 5% 1/6W
R049	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
R052	QRD161J-47Y	C RESISTOR	4.7 5% 1/6W
R053	QRD161J-102Y	CARBON RESISTOR	1.0K 5% 1/6W
TC02	QAT3620-100M	T CAPACITOR	
TC03	QAT3620-100M	T CAPACITOR	
TC05	QAT3620-100M	T CAPACITOR	
T001	VQT7F12-109	IFT	
T002	VQT7A21-103	IFT	
VR01	QVZ3512-103	V.RESISTOR	

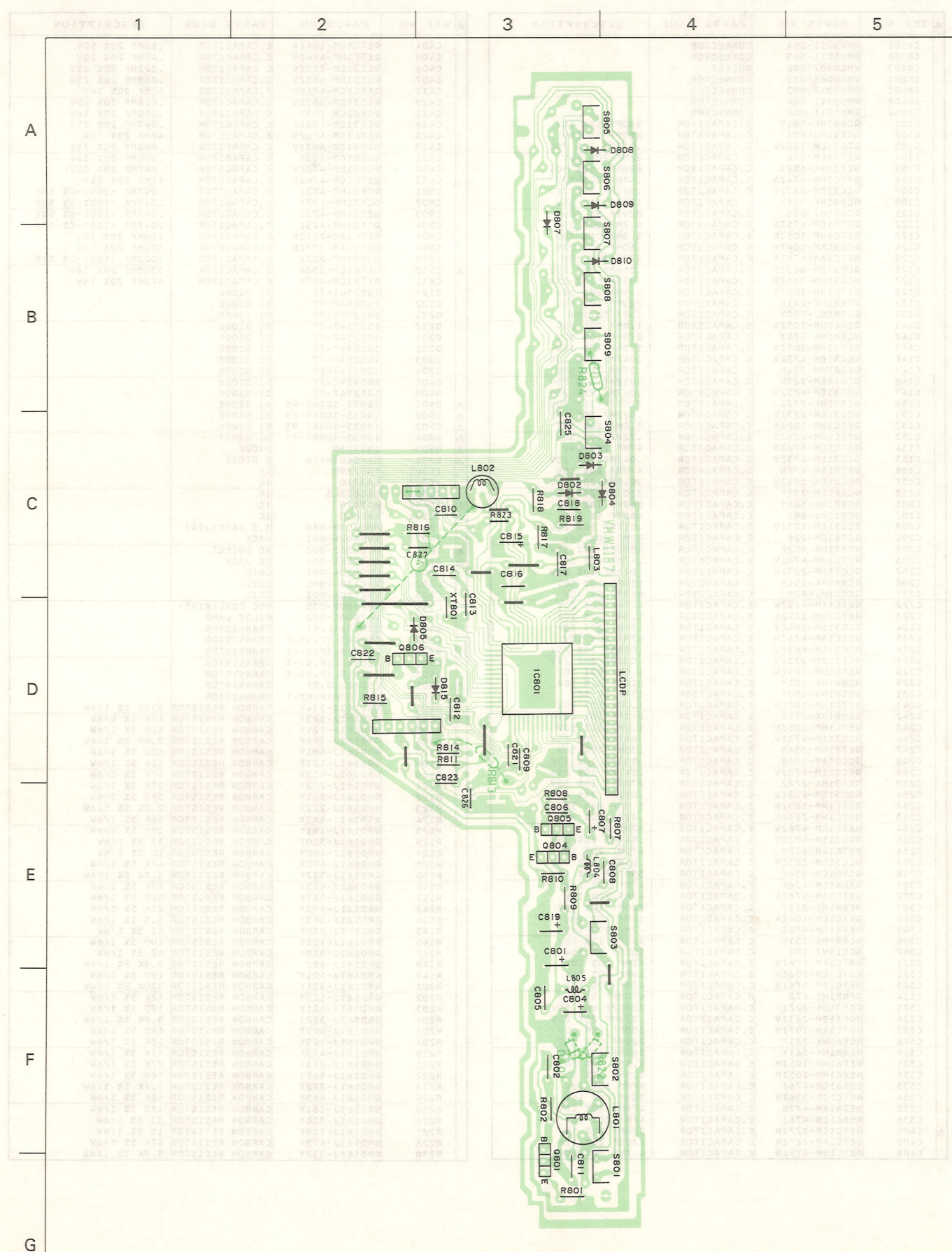


Fig. 11-5



## ■ Synthesizer/LCD Board (# 501~)

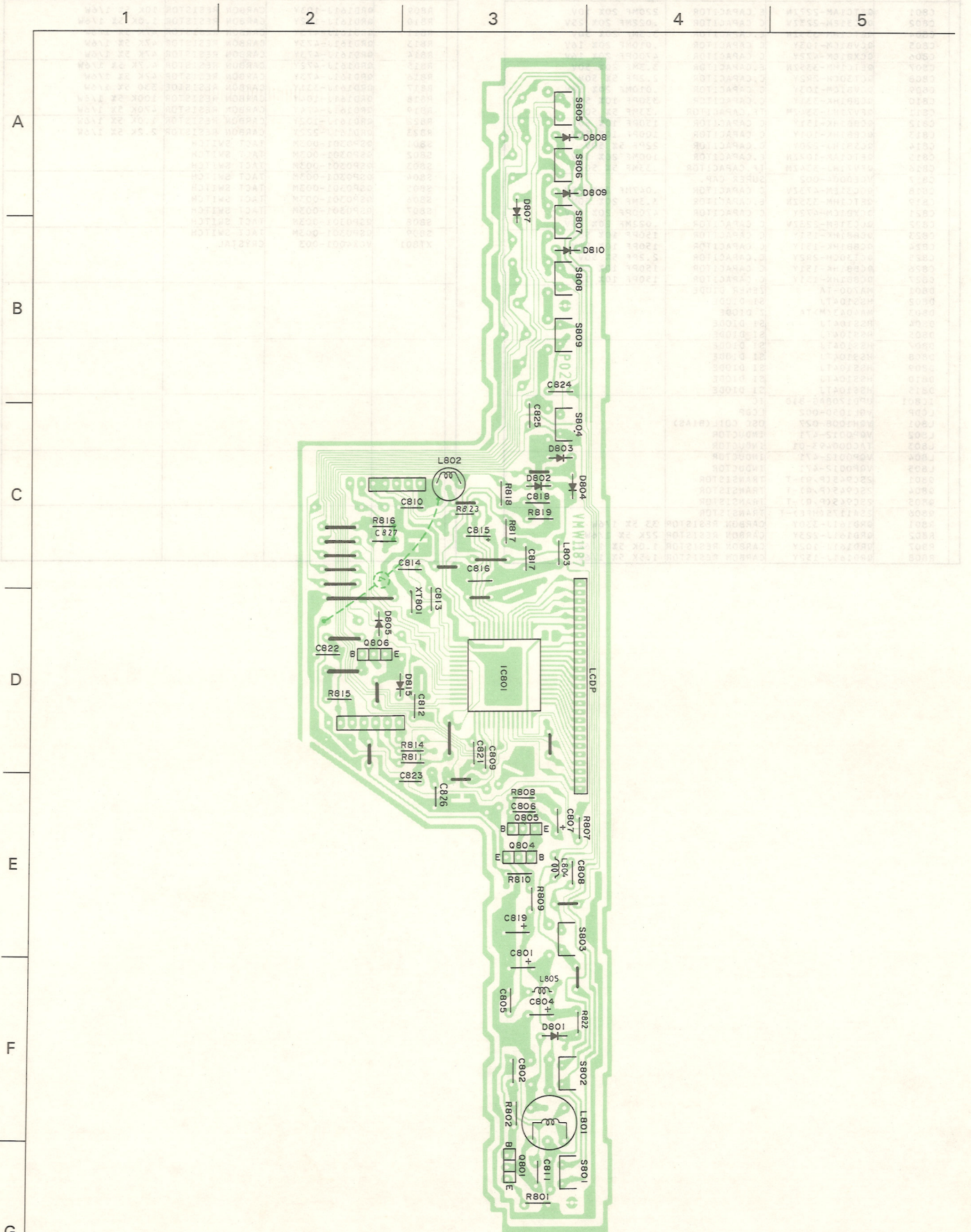


Fig. 11-6



## ■ Synthesizer/LCD Board Parts List

△	REF. NO	PARTS NO.	PARTS NAME	DESCRIPTION
	C801	QETC1AM-227ZN	E CAPACITOR	220MF 20% 10V
	C802	QCC31EM-223ZV	C CAPACITOR	.022MF 20% 25V
	C804	QETC1HM-335ZN	E.CAPACITOR	3.3MF 20% 50V
	C805	QCVB1CM-103Y	C CAPACITOR	.010MF 20% 16V
	C806	QCXB1CM-472Y	C CAPACITOR	4700PF 20% 16V
	C807	QETC1HM-335ZN	E.CAPACITOR	3.3MF 20% 50V
	C808	QCT30CH-2R2Y	C.CAPACITOR	2.2PF 5% 50V
	C809	QCVB1CM-103Y	C CAPACITOR	.010MF 20% 16V
	C810	QCB81HK-331Y	C.CAPACITOR	330PF 10% 50V
	C811	QFV71HJ-334ZM	TF.CAPACITOR	.33MF 5% 50V
	C812	QCB81HK-151Y	C CAPACITOR	150PF 10% 50V
	C813	QCB81HK-101Y	C CAPACITOR	100PF 10% 50V
	C814	QCS81HJ-220Y	C.CAPACITOR	22PF 5% 50V
	C815	QETC1AM-107ZN	E.CAPACITOR	100MF 20% 10V
	C816	QFV71HJ-334ZM	TF.CAPACITOR	.33MF 5% 50V
	C817	VCE0004-002	SUPER CAP.	
	C818	QCC31EM-473ZV	C CAPACITOR	.047MF 20% 25V
	C819	QETC1HM-335ZN	E.CAPACITOR	3.3MF 20% 50V
	C821	QCXB1CM-472Y	C CAPACITOR	4700PF 20% 16V
	C822	QCC31EM-223ZV	C CAPACITOR	.022MF 20% 25V
	C823	QCB81HK-151Y	C CAPACITOR	150PF 10% 50V
	C824	QCB81HK-151Y	C CAPACITOR	150PF 10% 50V
	C825	QCT30CH-2R2Y	C.CAPACITOR	2.2PF 5% 50V
	C826	QCB81HK-151Y	C CAPACITOR	150PF 10% 50V
	C827	QCB81HK-151Y	C CAPACITOR	150PF 10% 50V
	D801	MA700-TA	ZENER DIODE	
	D802	HSS104TJ	SI DIODE	
	D803	MA4043(M)TA	Z DIODE	
	D804	HSS104TJ	SI DIODE	
	D805	HSS104TJ	SI DIODE	
	D807	HSS104TJ	SI DIODE	
	D808	HSS104TJ	SI DIODE	
	D809	HSS104TJ	SI DIODE	
	D810	HSS104TJ	SI DIODE	
	D815	HSS104TJ	SI DIODE	
	IC801	UPD1708AG-810	IC	
	LCDP	VGL1050-002	LCDP	
	L801	VQH1008-0027	OSC COIL(BIAS)	
	L802	VQP0012-471	INDUCTOR	
	L803	TAC000493-01	INDUCTOR	
	L804	VQP0012-471	INDUCTOR	
	L805	VQP0012-471	INDUCTOR	
	Q801	2SC945(P,Q)-T	TRANSISTOR	
	Q804	2SC945(P,Q)-T	TRANSISTOR	
	Q805	2SC945(P,Q)-T	TRANSISTOR	
	Q806	2SA1175(HFE)-T	TRANSISTOR	
	R801	QRD161J-330Y	CARBON RESISTOR	33 5% 1/6W
	R802	QRD161J-223Y	CARBON RESISTOR	22K 5% 1/6W
	R807	QRD161J-102Y	CARBON RESISTOR	1.0K 5% 1/6W
	R808	QRD161J-152Y	CARBON RESISTOR	1.5K 5% 1/6W

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# 12 Exploded View of Enclosure Assembly (The Parts List Can be found on page 26.)

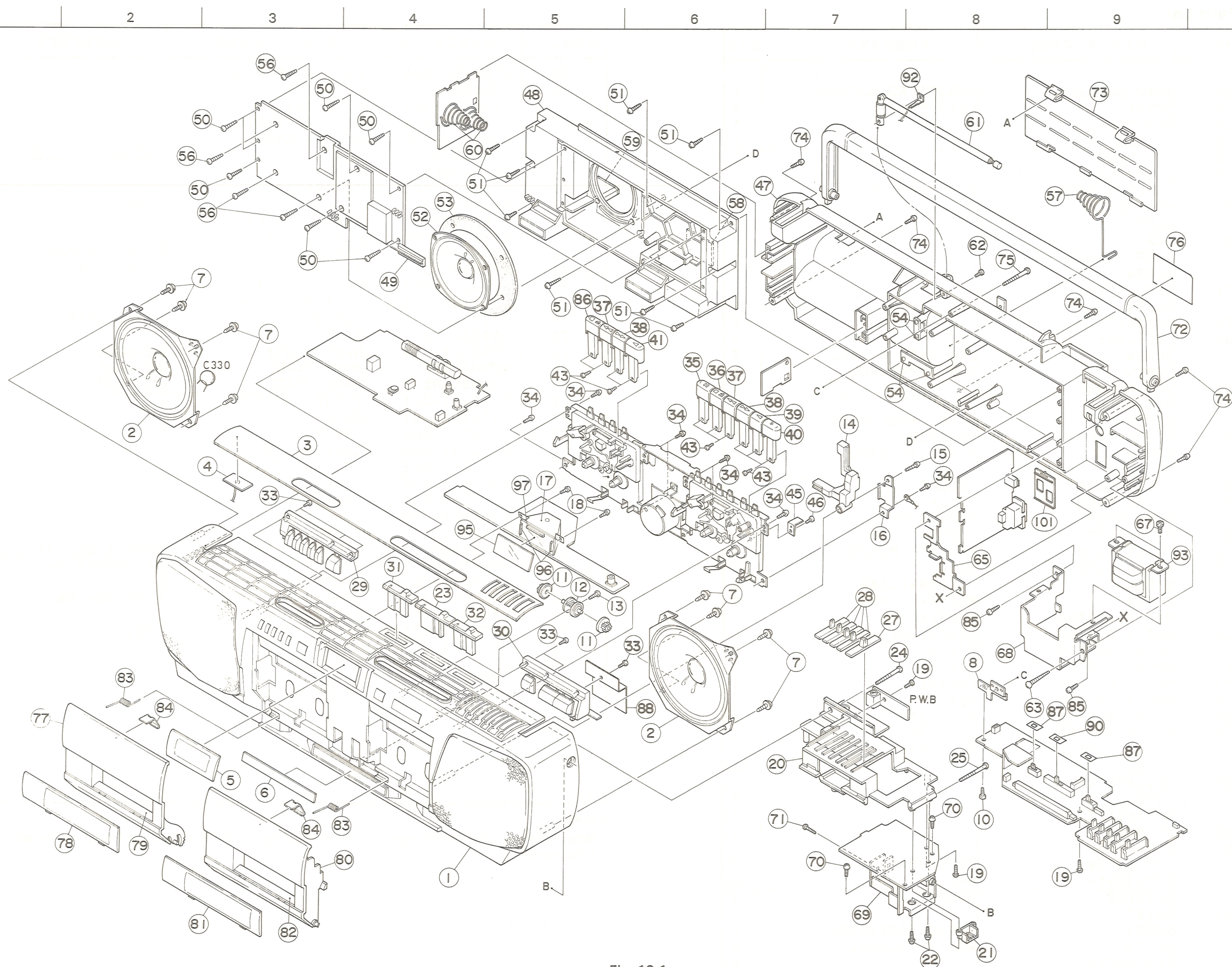


Fig. 12-1



## ■ Enclosure Assembly Parts List

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	※ 1	ZCRCW410□-FBK	FRONT CABI ASS'Y	INCLUDED REF. NO. 3,4,5,6	1
	2	VGS1001-008	SPEAKER	LEFT, RIGHT	2
	3	VJD2333-003	TOP PANEL		1
	4	VYH6988-002	SHIELD		1
	5	VJK3442-003	LCD LENS		1
	6	VJD5188-002	ESCUTCHEON		1
	7	GBSF3010Z	TAPPING SCREW	FOR SPK+F.CAB.	8
	8	VYH6828-001	BRACKET		1
	10	SDST3008Z	SCREW		1
	11	VYH5601-001	GEAR		2
	12	VYH5896-001	DAMP HOLDER		1
	13	SDSF3012Z	SCREW	D.HOLDER+F.CAB.	1
	14	VYH6810-002	REC LEVER		1
	15	SBSF3025Z	SCREW	REC LEVER	1
	16	VYH6985-001	BRACKET		1
	17	VYH6829-002	LCD CASE	LCD	1
	18	SBSF3008Z	SCREW	LCD CASE+F.CAB.	2
	19	SDSF3012Z	SCREW	FOR AMP+V.HOL.	3
	20	VYH2224-001	VOL HOLDER		1
	21	VYH6987-001	MIC HOLDER		1
	22	SDSF3012Z	SCREW	M.HOL.+VOL.HOL.	2
	23	VXS3032-001	SLIDE KNOB	FUNCTION	1
	24	SBSF3045M	SCREW	V.HOL.+F.CAB.	1
	25	SBSF3045M	SCREW		1
	27	VXS4306-001	SLIDE KNOB	VOLUME	1
	28	VXS4317-001	SLIDE KNOB	S.E.A	4
	29	VXP3265-001	PUSH KNOB	SCAN, SEEK	1
	30	VXP3275-001	PUSH KNOB	TUNER	1
	31	VXS3031-001	SLIDE KNOB	NOM/MTL MON/ST	1
	32	VXS3031-001	SLIDE KNOB	3D	1
	33	SBSF2608Z	SCREW	P.KNOB+F.CAB.	6
	34	SDSF3012Z	SCREW	MECHA+F.CAB.	8
	35	VXP3266-005	MECHA BUTTON	PAUSE(B)	1
	36	VXP3266-006	MECHA BUTTON	STOP/EJECT(B)	1
	37	VXP3266-002	MECHA BUTTON	FF(A)	1
		VXP3266-007	MECHA BUTTON	FF(B)	1
	38	VXP3266-003	MECHA BUTTON	REW(A)	1
		VXP3266-008	MECHA BUTTON	REW(B)	1
	39	VXP3266-009	MECHA BUTTON	PLAY(B)	1
	40	VXP3266-010	MECHA BUTTON	REC.(B)	1
	41	VXP3266-004	MECHA BUTTON	PLAY(A)	1
	43	SDST2004Z	SCREW		11
	45	VYH6915-001	REC.SPRING		1
	46	SDST2004Z	SCREW		1
	47	VJC1743-004	R CABINET		1
	48	VYH1183-002	3D BASE		1
	49	VYH6856-001	COVER(A)		1
	50	SDSF3016Z	TAP.SCREW	COVER+BASE	7
	51	SDSF3016Z	TAP.SCREW	BASE+R.CAB.	8
	52	EAS8PXXX	SPEAKER	WOOFER	1
	53	VYH6897-002	SHEET		1
	54	SSSF3010Z	SCREW	R.CAB.+COVER(A)	2
		SSSF3010Z	SCREW	WOOFER+R.CAB.	2
	56	SDSF3016Z	TAP.SCREW		4

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY
	57	VYH5657-004	BATTERY SPRING		1
	58	VYH6989-001	COVER(C)		1
	59	VYH6989-002	COVER(D)		1
	60	VYH5483-001	BATTERY SPRING		2
	61	VJA3006-00E	ROD ANTENNA		1
	62	SDSP3016R	SCREW	ROD ANT.+R.CAB.	1
	63	SBSF4020Z	SCREW	TRANS+R.CAB.	1
	65	VYH6849-002	AC BRACKET		1
	67	SDSP4006Z	SCREW	T.BKT+TRANS	2
	68	VYH3507-001	TRANS BRACKET		1
	69	VYH3508-001	HEAT SHINK		1
	70	SBSF3008Z	SCREW	H.SINK+P.PWB	2
	71	SBSF2608Z	SCREW	H.SINK+IC	3
	72	VJH4101-00A	HANDLE ASS'Y		1
	73	VJC3185-001	BATTERY COVER		1
	74	SBSF3018Z	SCREW	FRONT+REAR	5
	75	SBSF3045Z	SCREW		1
	76	VYN5131-004	NAME PLATE	RC-W410B	1
	76	VYN5131-002	NAME PLATE	RC-W410E	
	76	VYN5131-005	NAME PLATE	RC-W410G	
	77	VJT2191-001	CASSETTE DOOR		1
	78	VJT3261-001	DOOR LENS		1
	79	VJD5162-002	ORNAMENT		1
	80	VJT2191-002	CASSETTE DOOR		1
	81	VJT3261-003	DOOR LENS		1
	82	VJD5162-002	ORNAMENT		1
	83	VYH5538-001	CASSETTE SPRING		2
	84	VYH6855-002	DOOR SPRING		2
	85	SDSF3012Z	SCREW		2
	86	VXP3266-001	MECHA BUTTON	STOP/EJECT(A)	1
	87	VYH7018-001	SPACER	3D, MON/ST SW.	2
	88	VYH7019-001	STOPPER		1
	90	VYH7018-002	SPACER	FUNCTION SW.	1
	92	VYH5012-004	TERMINAL LUG		1
△	93	VTP54P2-12IBS	POWER TRANS	T901	1
	95	VYH6895-001	SHEET		1
	96	VYSR102-040	SPACER		2
	97	VYSR102-042	SPACER		1
	101	VYH6850-001	AC SLIDER		1

※Note:

When placing an order for this assembly, put an applicable symbol (B, E, G etc.) of the set into the box (□) of the parts number.



# 13 Exploded View of Mechanism Assembly (The Parts List Can be found on page 28.)

1 2 3 4 5

A

B

C

D

E

F

G

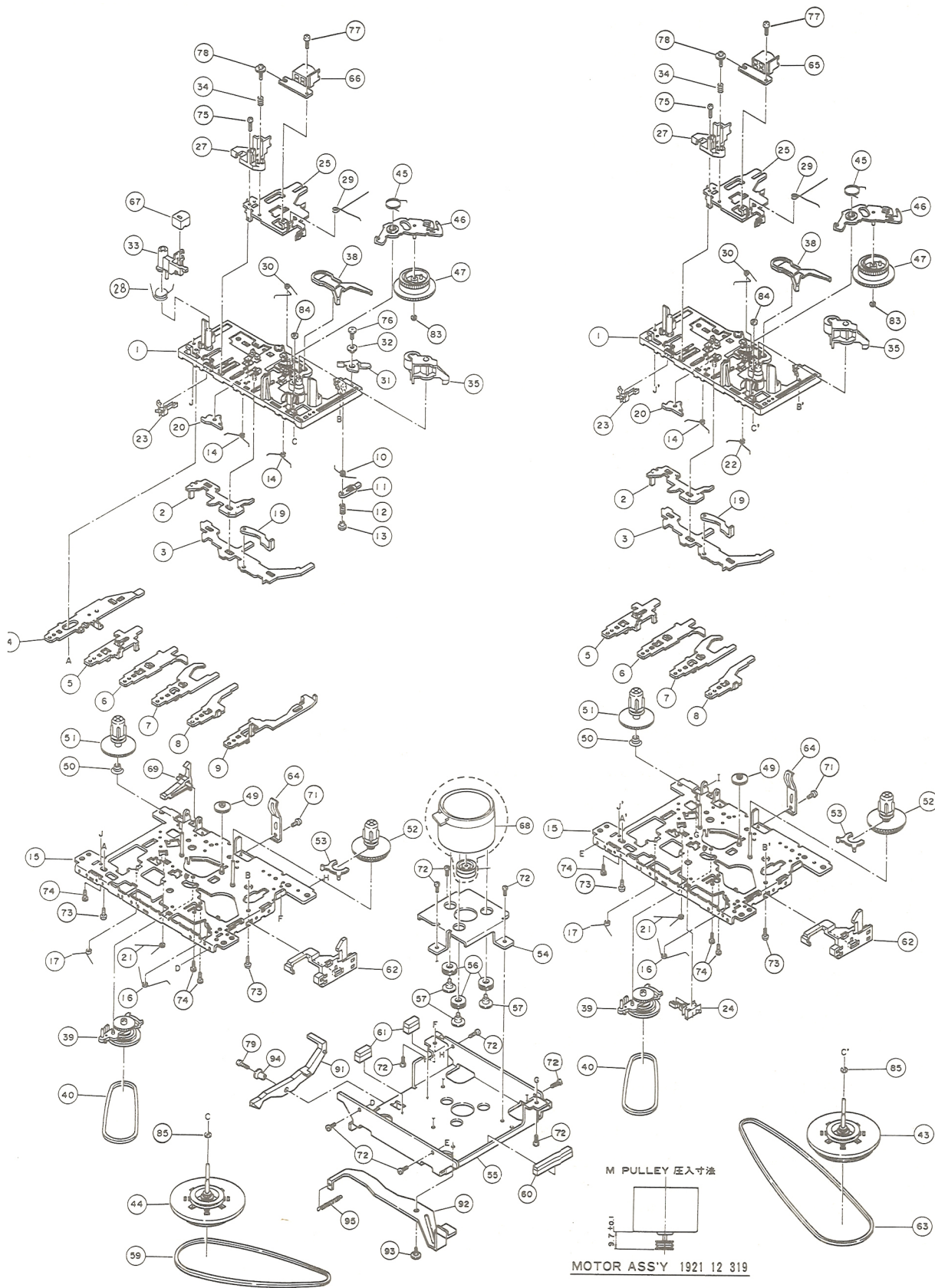


Fig. 13-1



## ■ Mechanism Assembly Parts List

⚠	Symbol No.	Parts No.	Parts Name	Remarks	Q'ty
	1	192114301T	Base Ass'y		2
	2	19211409T	Switch Actuator		2
	3	19211438T	Push Button Actuator		2
	4	19211403T	REC Button Lever		1
	5	19211419T	PLAY Button Lever		2
	6	19211404T	REW Button Lever		2
	7	19211405T	FF Button Lever		2
	8	19211406T	STOP Button Lever		2
	9	19211460T	PAUSE Button Lever		1
	10	19211413AT	Spring	for P. Control	1
	11	19211455T	PAUSE Lever (E)		1
	12	19211412T	Spring	for PAUSE Lever	1
	13	19211411T	PAUSE Stopper		1
	14	19211414T	Spring	for Button Lever (A)	3
	15	192101501T	Chassis Ass'y		2
	16	19211416T	Spring	for E. Actuator	2
	17	19211417T	Spring	for P.S. Lever	2
	19	182101159T	E. Kick Lever		2
	20	19211420T	PR Stopper		2
	21	18211421T	Spring	for REC Button Lever	2
	22	19211433T	Spring	for Button Lever	1
	23	640101149T	Leaf Switch	MSW-1541T	2
	24	640101161T	Leaf Switch	MSW-17820MVDO	1
	25	19210301T	Head Panel		2
	27	19210304AT	Head Base		2
	28	19210310T	Spring	for MG Arm	1
	29	19210303T	Spring	for Panel P.	2
	30	19211418T	Spring	for M. Control	2
	31	19211434T	P. Arm		1
	32	19211437T	P. Arm Collar		1
	33	19210305T	Magnet Arm	for Erase Head	1
	34	18210307T	Spring	for Azimuth	2
	35	192104301T	Pinch Roller Arm Ass'y		2
	38	19212604T	Sensing Lever		2
	39	192107302T	RF Clutch Ass'y		2
	40	19210703T	RF Belt		2
	43	192109304T	Flywheel Ass'y		1
	44	192109303T	Flywheel Ass'y		1
	45	19212605T	Spring	for Gear Plate	2
	46	192126502T	Gear Plate Ass'y		2
	47	19212602T	Cam Gear		2
	49	18211070T	FF Gear		2
	50	18291010T	Spring	for Back Tension	2
	51	192105304T	Supply Reel Ass'y		2
	52	192105303T	Take-up Reel Ass'y		2
	53	19210506T	Sensor		2
	54	19211229T	Motor Bracket (A)		1
	55	19211230T	Motor Bracket (B)		1
	56	18211266T	Motor Rubber		3
	57	18511418T	Collar Screw	for Motor	3
	59	182122T	Main Belt		1
	60	192112T	Anti Vibration Felt Mat		1



△	Symbol No.	Parts No.	Parts Name	Remarks	Q'ty
	61	18201354T	Anti Vibration Felt Mat		2
	62	19211301T	Eject Slide Lever		2
	63	18211249T	Main Belt		1
	64	18291001T	Pack Spring		2
	65	62020178T	Head	283-30-69 for Playback	1
	66	62020178T	Head	283-30-69 for Recording	1
	67	62121003T	Erase Head	EMH-EA60B	1
	68	192112319T	Motor	MMI-6H2RWSK • 60050350T	1
	69	18211069T	Record Safety Lever		1
	71	91790000T	Tapping Screw	C. Tight M2 x 3 (for Symbol No. 64)	2
	72	91800000T	Tapping Screw	C. Tight M2 x 4 (for Symbol No. 54)	9
	73	96790000T	Tapping Screw	P. Tight Bind M2 x 5 (for Symbol Nos. 1, 15)	4
	74	99991809T	Tapping Screw (Small)	M2 x 4.5 for Precision Machine (Symbol No. 15)	6
	75	90040000T	Screw	M2 x 6 (Pan Head) (for Symbol No. 27)	2
	76	99992018T	Tapping Screw	PS Tight M2 x 3.5 (for Symbol No. 31)	1
	77	91150000T	Screw	+ Bind M2 x 3 (for Symbol No. 66)	2
	78	99220000T	Screw	M2 x 7 for Azimuth	2
	79	91820000T	Tapping Screw	C. Tight M2 x 6 (for Symbol No. 91)	1
	83	94220000T	Washer	Polyslider cut 1.2 x 3.8 x 0.3	2
	84	99990313T	Washer	Polyslider cut 1.45 x 3.8 x 0.5	2
	85	97860000T	Washer	Polyslider cut 2 x 3.5 x 0.3	2
	91	19211209T	P. Kick Lever (B)		1
	92	19211231T	P. Kick Lever (A)		1
	93	18211223T	Collar Screw (A)	for PK (Symbol No. 92)	1
	94	18211265T	Collar (B)	for PK (Symbol No. 91)	1
	95	18211225T	Spring	for P. Kick Lever	1



14 Packing Illustration and Parts List

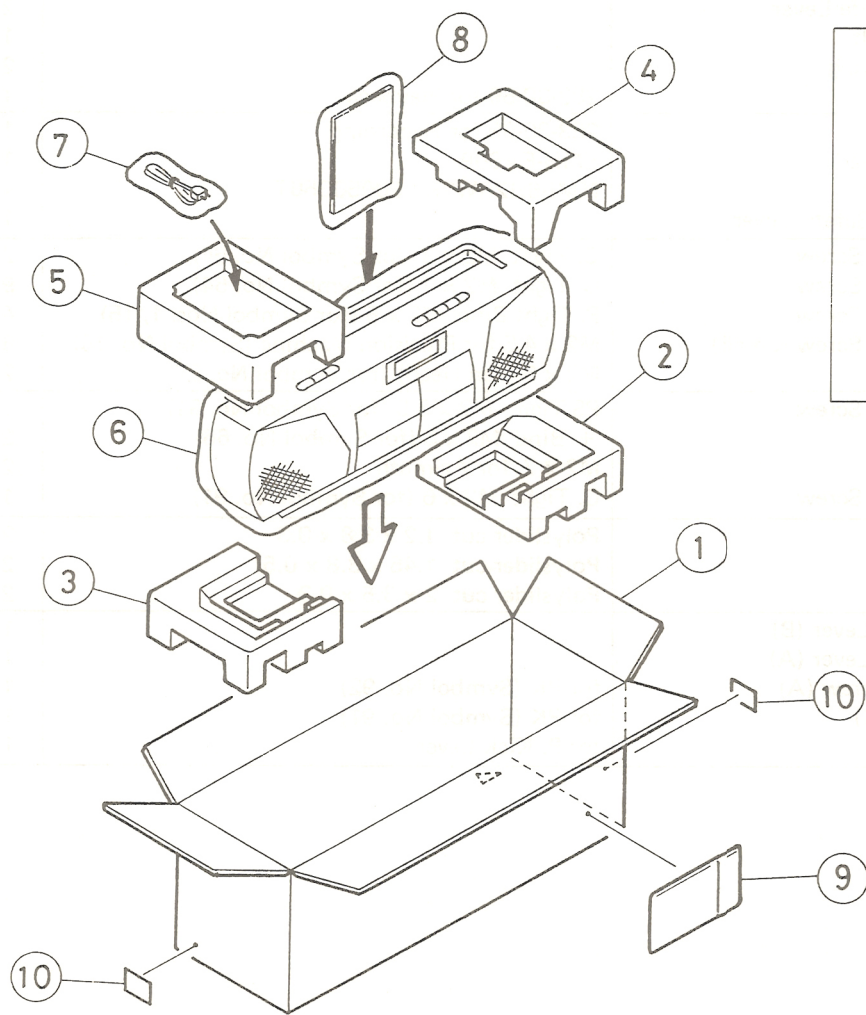


Fig. 14-1

Before use, remove the cover.  
Avant d'utiliser l'appareil, retirer le couvercle.  
Dies ist eine Transport-Schutzabdeckung.  
Diese vor Gebrauch abnehmen.

VPK4237-001

Spacer  
VPK4237-001

Before repacking, make sure to insert this spacer into a space behind the PLAY ◀ button of the B mechanism.

Packing Parts List

▲	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
	1	VPC5131-001	Carton		1
	2	VPH1443-001	Cushion	Right, Bottom	1
	3	VPH1443-002	Cushion	Left, Bottom	1
	4	VPH1444-001	Cushion	Right, Upper	1
	5	VPH1444-002	Cushion	Left, Upper	1
	6	VPH3005-030	Poly Bag	For Set	1
	7	QPGA012-02505	Poly Bag	For Power Cord	1
	8	VPE3005-004	Poly Bag	For Instruction Book	1
	9	E66416-003	Envelope	For Warranty Card (B/G version)	1
	10	VND3046-003	Serial Ticket	Blue: RC-W410E	2
	10	VND3046-004	Serial Ticket	Green: RC-W410B	1
	10	VND3046-005	Serial Ticket	Pink: RC-W410G	1
	10	VND3046-001	Serial Ticket	White: RC-W410GI/V/VX	1



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Accessories

⚠	Ref. No.	Parts No.	Parts Name	Remarks	Q'ty
		VNN5131-211	Instruction Book	RC-W410	1
		VNN5131-441	Instruction Book	RC-W410E	1
		BT20060	Warranty Card	RC-W410B	1
		BT20066A	Warranty Card	RC-W410B/G	1
		BT20065A	Warranty Card	RC-W410G	1
⚠		PU36158	FTZ INF. SHEET	RC-W410G	1
⚠		E43486-340B	Safety Instruction Book	RC-W410B	1
		QMP3950-183	Power Cord	RC-W410E/G	1
		QMP9017-009BS	Power Cord	RC-W410B	1